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THE MOTION PICTURE CAMERA MAGAZINE

September 1941

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THE MOTION PICTURE **CAMERA** MAGAZINE

VOL. 22 **SEPTEMBER, 1941** **NO. 9**

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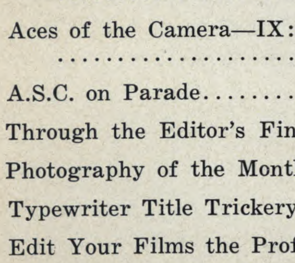

The Front Cover

Still-man Bob Coburn snapped this month's cover still on one of Hollywood's hottest July days, while filming a winter scene for Alexander Korda's "Lydia." Believe it or not, that's real snow, made by grinding half a million pounds of ice in special snow-machines. Note also the wind-machine and wave-machine at left for creating stormy weather. If you look closely, you'll see Director of Photography and Associate Producer Lee Garmes' face just beneath the tripod, as he discusses the shot with Director Julien Duvivier and the Script Girl.

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Meet the Winners!

SOL POLITO, A. S. C.
(Production)

ARTHUR EDESON. A. S. C.
(Battle Sequences)

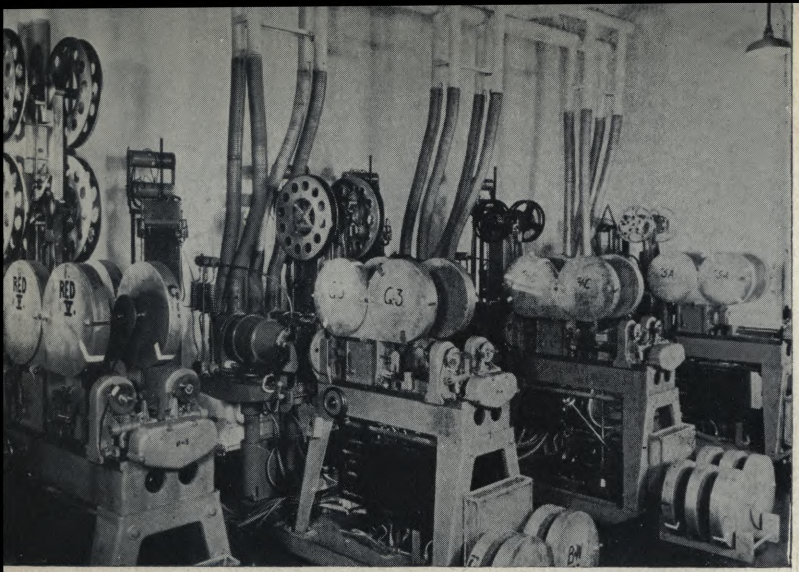
THE Hollywood REPORTER CRITICS' PREVIEW POLL FOR JULY

BEST PHOTOGRAPHY

"SERGEANT YORK"

(The Jesse Lasky - Warner Bros. Production)

EASTMAN FILMS
BRULATOUR SERVICE



This battery of optical printers prints the matrices from which Technicolor prints are made.

Enlarging 16mm Kodachrome To 35mm Technicolor!

By WILLIAM STULL, A.S.C.

SIXTEEN millimeter has grown up—literally. For months there have been rumors of experiments in enlarging 16mm. Kodachrome to 35mm. Technicolor. Today, those rumors are confirmed. The experiments have borne fruit: 35mm. Technicolor prints from 16mm. Kodachrome originals are a commercially-available reality. Even as this is being written, 35mm. Technicolor release-prints are being made of the first short-subject filmed in 16mm. Kodachrome by a major studio for theatrical release!

Judged by results screened for this writer, there can be no doubt that we stand at the threshold of a revolutionary change in the making of industrial and documentary films and at least some types of theatrical short-subjects. For the results are astonishing: the enlarged print retains the many desirable optical qualities inherent to 16mm., and offers possibilities of convenience and economy in filming beyond anything possible in 35mm.

The first step in making the "blow-up" is the making of three selectively-filtered 35mm. color-separation negatives. This is of course done optically, with one negative filtered to form the red record, a second filtered to form the blue record, and the third to form the green record.

Then in Technicolor's printing-process, matrices are made from each of the three negatives — raised-gelatin relief images from which the appropriate dyes are transferred in somewhat the fashion of a rubber stamp to the positive film which comprises the final print. In this operation the red-record matrix prints the cyan (blue) image; the green matrix, magenta; and the blue matrix, yellow. This printing method is, of course, identical with that used in making Technicolor prints from any conventional 35mm. Technicolor negatives.

Throughout these processes, a very considerable amount of control is possible, so that in some instances, at least, compensation can be made to correct minor shortcomings in the contrast and color-balance of the 16mm. original. In the printing and development of the enlarged separation-negatives, a considerable degree of control of contrast is possible. In the same way, in the making of the final print, a considerable control of color-balance and density is possible, resulting in a quality quite superior to the writer's expectations. Such control is something heretofore unknown, though greatly needed, in the 16mm. commercial Kodachrome field.

The tonal range and gradation of the Technicolor enlargements screened for the writer were a revelation. There was less of the appearance of a dupe than he had considered possible. While no direct comparisons were available, tonal range and gradation in these Technicolor enlargements seemed to compare well with both direct 35mm. Technicolor and 16mm. Kodachrome. Tests on color charts showed very excellent rendition of both saturated and pastel colors, while gray-scales were reproduced with uncommon fidelity, with excellent blacks and uncommonly clear whites. Flesh-tones were particularly pleasing. While not on a par with the best possible in major-studio 35mm. Technicolor, the flesh rendition is definitely the best we've seen in any Kodachrome enlargements, and much cleaner than is general in even the best 16mm. Kodachrome dupes.

The optical quality of these enlargements proved another pleasant surprise. The perspective and depth of field given by the 25mm. lenses customarily used for 16mm. are of course retained in the enlargement, and the result, from 35mm. and on a large screen, seemed almost uncanny. There was depth there that could not be approached in any 35mm. without risking the often distorting perspective of a wide-angle lens. What can be done with an enlargement made from a 16mm. Kodachrome photographed through the normal substandard wide-angle objectives—20mm. and 15mm.—should be a revelation on the screen.

The steadiness shown in all of the enlarged prints is another amazing thing. We are accustomed to look upon steadiness as something more or less exclusive to 35mm. film and professional equipment: but these enlargements, by whatever process made, prove that 16mm. Kodachrome, filmed in a properly-handled, high-grade 16mm. camera such as the Cine-Kodak Special, is certainly steady enough for most professional purposes. Frankly, we've seen less steady films made in 35mm. with some of our best professional cameras.

The excellent definition possible in these enlargements explodes another fallacy. Theoretically, it would be expected that definition must naturally suffer through the various duping, enlarging and reprinting processes involved in making these 16mm.-to-35mm. enlargements. But this does not seem to be the case. Where the original 16mm. Kodachrome is adequately defined, the definition of the enlarged print appears to remain entirely satisfactory. As a matter of fact, seeing some of these enlarged prints projected on a screen more than twelve feet wide, we would be inclined to say the definition was at least equal to that which would be obtained projecting the original 16mm. to similar dimensions. In some instances, the definition appeared even to surpass that expectable in the original.

Grain-size in the enlarged Kodachrome-Technicolor 35mm. color-print is another pleasurable surprise. In conventional black-and-white practice we have been accustomed to think of greatly exaggerated graininess as an inevitable concomitant of enlarging 16mm. to 35mm. Thus while enlargements from 16mm. black-and-white originals made on either reversal or 16mm. negative film have at times been made in the case of exceptional newsreel subjects, the fact that the enlarged print retained and magnified the grain-structure of the original 16mm. black-and-white silver image restricted the use of 16mm.-to-35mm. enlargements to strictly emergency subjects in which the news value of subject or action outweighed considerations of photographic quality.

But in working from a Kodachrome original, this is not the case. Grain-size, for all practical purposes, simply does not enter into consideration. The original 16mm. Kodachrome is virtually grainless, for the image is formed, not of an aggregation of minute silver particles, but of virtually homogeneous deposits of chemical dyes. Therefore, there is literally no grain to be rephotographed and magnified in the enlarging process.

Therefore the results on the screen are as grainless as direct 35mm. Technicolor prints. The writer took pains to inspect some of these enlargements from a point within a few feet of the screen—far closer than is possible in any theatre or auditorium. No graininess was apparent, though from the same viewing distance even a fine-grain black-and-white 35mm. scene would become a mass of bewildering grain. It can safely be said that these enlarged color-prints will not appear grainy even from the front-row seats in a large theatre.

Proof of the lack of granularity in 35mm. enlargements from 16mm. Kodachrome may be found in recalling the scenes of the collapse of the Tacoma bridge released by the major newsreels last year. The greater part of this, the most sensational newsreel "story" of 1940, was captured by an amateur using 16mm. Kodachrome and enlarged to 35mm. black-and-white. It will be recalled that the photographic quality—and especially the grain-size—of these scenes compared excellently with the direct 35mm. scenes with which they were intercut.

Very obviously, the success or failure of a 35mm. color enlargement must rest with the quality of the 16mm. original from which it is made. Recognizing this, Technicolor sets forth suggestions to assist in obtaining the best possible quality in the original Kodachrome. The more closely these suggestions are followed, the more likelihood there is of obtaining superior finished results on the screen in the enlarged color print.

The original, first of all, must be photographed in a high-grade 16mm. camera in good mechanical condition and the lenses used must be the best obtainable, fully color-corrected.

While this seems almost self-evident to the serious 16mm. commercial filmer, it is a requirement which cannot be too strongly stressed: a genuinely rigid tripod absolutely *must* be employed. With the possible exception of very fast follow-shots, hand-held 16mm. camerawork is so much too unsteady that it should not be enlarged under any circumstances.

The lighting should, generally speaking, be front or front cross light to avoid excessive contrast and to permit full color reproduction. Back-lightings and cross-lightings may be used only if they are handled as a 35mm. professional cinematographer would in filming Technicolor — using either reflectors or booster-lights to equalize the exposure-values between the highlight and shadow sides.

Unlike the exposure for 16mm.-to-16mm. Kodachrome duping, which should be on the full side, Technicolor prefers Kodachrome originals in which the exposure is just barely on the low side of normal. In this way, washed-out highlights are eliminated, while the enlarging and printing processes provide sufficient latitude to take care of the shadows and middle tones.

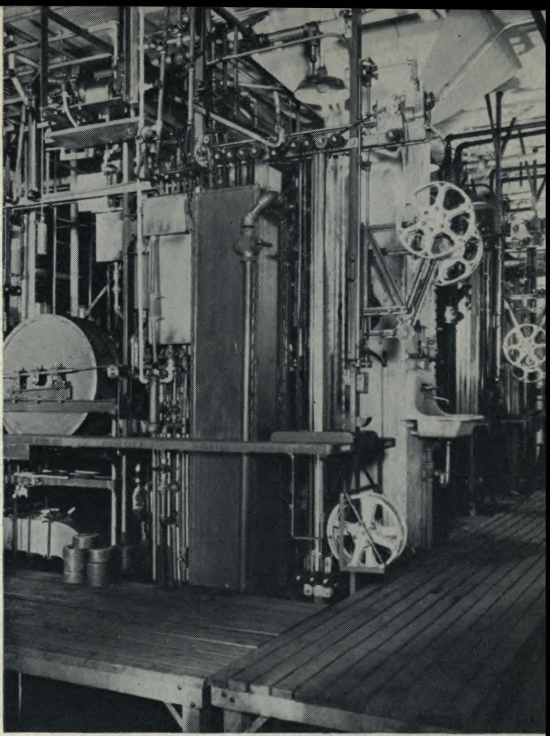
The 16mm. Kodachrome stock used in making the original 16mm. production should be all of one emulsion number. If the production combines both exterior and interior sequences, the "Type A" emulsion should be used throughout, with of course the necessary color-balancing filter (always the same individual filter) for the exteriors.

The original 16mm. Kodachrome should all be processed at the same time, to assure consistent contrast, density and color-balance.

Perhaps the most important requirement of all is that once the 16mm. film has been processed, it must be considered in every way as a negative. It should not be projected even once, for even a single passage through the best projector will cause abrasions which, while perhaps unnoticeable in ordinary 16mm. projection, will be enlarged and appallingly evident in the 35mm. print. The 16mm. Kodachrome processing laboratory should therefore be instructed not to project the film for inspection, as is usually done.

For editing purposes, a duplicate should immediately be made. This can be either a 16mm. Kodachrome dupe, a 16mm. black-and-white reversal dupe, or even a 35mm. black-and-white enlarged negative from which prints may be made as necessary. The original 16mm. Kodachrome should be stored in a clean negative cutting-room or vault —and the picture cut from this work-print.

When cutting of the work-print is completed, the original 16mm. Kodachrome is cut to match it. Since much of the dirt and abrasion usually found in 16mm. originals is found at the splices, this original should preferably be delivered to Technicolor in a long cut, with scenes cut approximately to length, but with several extra frames on both sides of each splice. The enlarged negatives are then made from the original, and precision-cut to exact frames, the splicing being done in the Technicolor laboratory, by experienced, professional negative cutters using the finest of equipment.



On these special imbibition machines the dyes are transferred from the matrices to the final three-color Technicolor print.

In this connection it may be stated that edge-numbered 16mm. Kodachrome is now available to commercial producers, though it must be obtained in 10,000-foot orders. This of course simplifies the cutting of the original.

From start to finish, absolute cleanliness is a prime essential in everything connected with the 16mm. Kodachrome original. Dust, finger-marks and abrasions are magnified incredibly in the enlargement, especially when the enlarged print is projected on a theatre-size screen, so much larger than anything usually attempted in direct 16mm. projection.

While it is not included in the Technicolor requirements, it would seem to the writer that it might be a very logical precaution to have the 16mm. original lacquered by the process recently perfected by the Kodak Research Laboratories, even before the cutting print is made. This would tend to eliminate any traces of the handling the original must necessarily undergo in making the cutting-print and rough-cutting it to footage. If any abrasions, oil-spots, dirt or finger-marks should occur, they can usually be removed entirely by simply removing the lacquer coating before the enlarged separation-negatives are made.

Fades, lap-dissolves, wipes and optical transitions of all types can be put into the film as a part of the regular Techni-

(Continued on Page 440)

A Three-Dimensional Exposure-Meter For Professional Use

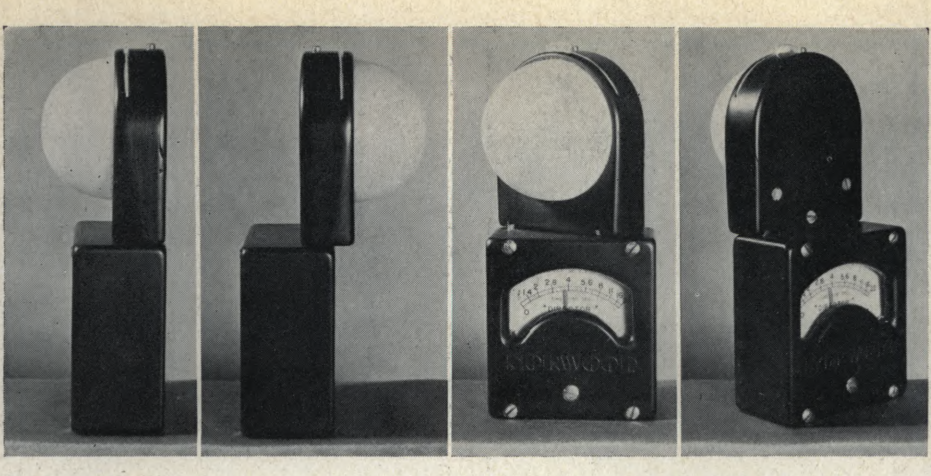
By WILSON LEAHY

TWO of Hollywood's leading experts in photoelectric light-measuring technique have joined forces to perfect the first light-meter designed solely to meet the specialized requirements of the professional cinematographer. Becoming acquainted through articles on exposure-metering which each had written for THE AMERICAN CINEMATOGRAPHER, Karl Freund, A.S.C., ace director of photography, and Capt. Donald W. Norwood, until his retirement an ace photographic expert of the U. S. Army Air Corps, found that Freund's experiences as a practical cinematographer supplied the missing links Norwood needed to perfect his "prevailing illumination" type of exposure-meter for studio use. With the benefit of the intimate data concerning studio conditions which Freund was able to supply, Norwood has developed a radically different type of meter which has already proven itself on actual production.

Both of them recognized that the professional cinematographer's exposure-meter requirements are unique, and not met by any commercially-available instruments thus far. The conventional reflected-light meter made for amateur use is useless to the professional, since with every factor under close control, the professional is not interested in either overall illumination per se, or in the reflective values of scene or set.

In the same way, the general practice of using a conventional meter for arbitrary incident-light readings on the key light is admittedly a makeshift. It gives a reading on a single light-source, but does not take into consideration the effects of such other inevitable angles of lighting as filler-light, cross-light, etc.

What the professional needs is an in-



The Norwood "Director" meter. Note hemisphere light-pickup, scale reading directly in f-stops, and manner in which photocell can be rotated to any angle. On opposite page, Karl Freund, A.S.C., is shown taking a reading with the Norwood meter preparatory to filming a scene for "The Chocolate Soldier." Note how meter's pickup duplicates lighting on Nelson Eddy's face.

strument which will measure with accuracy the light actually affecting the photographic rendition of the key factor in his scene—usually the face of the principal player. From this he can balance the rest of his lighting visually to produce the desired artistic result, creating shadows and highlights as may be desirable.

But to do this, it is necessary that the meter "see" the lighting on the subject as the camera does. If it "sees" the light without relation to the camera, its reading, while it may be technically accurate, will prove inaccurate photographically. This can easily be proved by taking two incident-light readings with a conventional meter on a subject, altering the angle but not the intensity of the key-light between the readings.

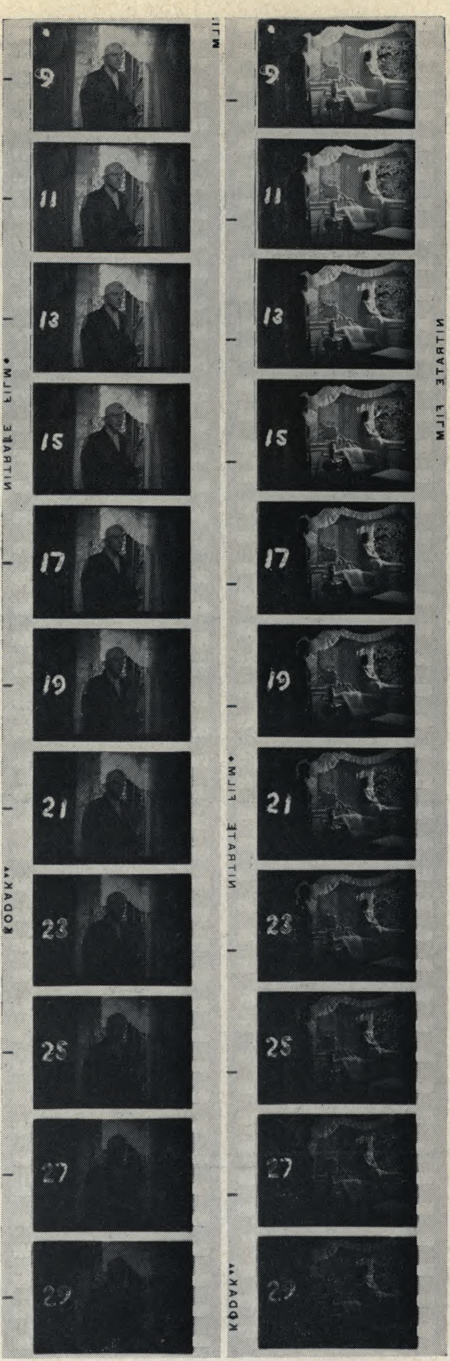
To cite an extreme example, a reading of this type may be taken with the key-light placed close to the camera, producing a front-lighted effect. The second reading may be taken in a cross-light, with the light-source at the same measured distance from the subject, but with the lamp moved through a 90-degree arc so that it now produces a cross-lighting. Conventional key-light measurements of these two set-ups would give identical readings. But practical photographers have for many years known it was necessary to double exposure—increasing it a full *f*-stop—for cross-lighting.

For this reason, Norwood has given his new meter a three-dimensional light-gathering surface, in the form of a hemisphere of ground celluloid placed over the meter's photocell "eye." When this hemisphere is placed in subject position and pointed directly at the camera's lens, the light falling on its three-dimensional surface reproduces exactly the lighting angles and relative intensities falling on the subject's face to affect exposure. In a flat front-light, it gives a high reading; in a cross-lighting of equal individual intensity, only half the hemisphere's surface is illuminated, while half is in shadow. Therefore the meter gives a proportionately lower reading, indicating approximately one *f*-stop more exposure is needed. If filler-light is used on the shadow-side, this, too, is registered by the meter, and the proportionate exposure indicated.

This principle has been engineered by Norwood and Freund into a compact and practical meter known as the Norwood "Director" Meter, which is the first product to be produced by a newly-established organization for cinetechnical research, the Photo Research Corporation. The heart of the instrument is a standard Weston photronic cell to which a standard Weston microammeter is permanently connected. Over the photocell is the ground-celluloid hemisphere which gives the meter its three-dimensional pick-up. The photocell-housing is mounted rotatably on the case for convenience in operation, so that the light pick-up can be swung through a 180-degree arc to right or left with reference to the case and indicating dial, permitting readings to be made with assurance that the operator's body is not shadowing any photographically effective light from the photocell.

The indicating dial reads directly in *f*-stops at the standard studio cine-camera exposure-speed of 1/50th second. Compensation for different film-speeds is made by means of perforated metal masks which are slid into place directly over the photocell. These are precision-matched to the individual meter, and are calibrated in terms of the familiar Weston film-speed ratings. These masks are further matched to coordinate with the individual processing conditions of the studio or film-laboratory where the user's film is to be processed.

For the present, at least, these meters are to be sold only to professional cinematographers. And this makes practical a unique policy. The purchaser of each meter is given an opportunity to use his instrument in making practical photographic tests, under actual studio conditions. A test stage is provided by the firm, complete with sets, camera equipment, and the latest Mole-Richardson lighting units. The purchaser of the meter is required to make tests, using these facilities and with his test-film developed to the same standards as those employed by the studio or laboratory handling his regular work, until he not only is familiar with using his meter, but has gained absolute confidence in it.



Light-tests of both ends of an effect-lighted dolly-shot, exposed with the new meter. Note uniformity of exposure throughout, and that even though an effect-lighting, the scene will print far down on the scale.

"This," says Freund, "is a most important factor in using the Norwood 'Director' Meter. He has made it, I am confident, the most accurate and dependable meter ever built for professional use. But unless the man who uses it has sufficient confidence to rely on it absolutely, it would be much better that he did not use it at all.

"Let me illustrate this. After Captain Norwood had worked out the first experimental models of this meter, we subjected them not only to the most searching laboratory tests, but to practical photographic tests of every description, using all types of film, including

(Continued on Page 440)

WHAT SHOULD TESTS SHOW?

By LESTER WHITE, A. S. C.

IT happens all too often in every studio . . . production is well under way, but everything is thrown suddenly out of gear as the rushes show that some person, costume, set or prop doesn't photograph as it should. Sometimes it means costly delays as a set is repainted or rebuilt, a costume re-made, a make-up or coiffure revised. Almost always it means ruffled tempers as producer, director, cinematographer and everyone else concerned asks "WHY?"

That person or object has almost certainly been subjected to extensive photographic tests. And those tests had showed up successful on the screen. The various executives, technicians and others whose duty it was to screen and pass on them had approved the person or object tested as wholly satisfactory for its part in the production. And still, perhaps in the expensive middle of production, we find things aren't right—that there must be delays and changes — probably retakes—before things can continue satisfactorily. No wonder everyone asks "WHY?" and points an accusing finger at the people on the set who can't apparently make that person or object appear as advantageously as in the test. And they usually speak highly of the cinematographer who made that test that was so good.

But to my mind, the shoe can very often be on the other foot in a case like this. The people who made the test did their work not merely well, but *too* well, for they made it under conditions which couldn't always be duplicated in actual production. They had, I think, the wrong conception of the test, in that they aimed for the maximum possible with that person or costume, rather than for the minimum that would be possible under the worst conditions of actual production.

Suppose, for instance, we're testing a player for an important feminine part. The natural instinct would be to give that test the very best photography of which you're capable—to present that girl in glamorizing close-ups and long-shots that enhance every bit of her natural beauty and charm.

Of course it's necessary to include some shots of this nature in any test. But to my mind, if the test is composed exclusively of them, it will be doing an injustice to the player, the cinematographer, the studio—and to the test itself. It leaves too much unanswered!

You've proved that the girl can be made to look lovely on the screen—in a shot where everything played into the photographer's hands; where movement of both subject and camera was minimized. You've proved, perhaps, that you can make her look attractive as she sits still and presents first a full-face angle to the camera, then the right profile, then the left, or perhaps walks slowly toward or from the camera.

So what?

Sooner or later you—or some other cinematographer—will have to face the problem of photographing her in action on the set. She'll be moving around—perhaps violently. Often your camera will be moving, too, on dolly or boom. Your lamp-placement may at times be restricted by camera-movement or the need of eliminating microphone-shadows. Can you still make her look as well then as she did in the test?

Maybe in your test you used a heavy—and glamorizing—diffusion. You can do this in close-ups in production: but how about the longer shots where you can't use so much diffusion? How is she going to look then?

Unless the test takes consideration of these inevitable factors, and shows the minimum that can be expected, as well as the maximum, it can't be called a really fair test!

Suppose you have a character-actor like Paul Muni, for example, playing a Mexican or a Chinese. A test of his make-up alone shows nothing but the already well-known fact that he can be made up to represent almost any type of character. But unless you and the test-director plan for it, it won't show how convincing that make-up will be in scenes where he is eventually to work with a genuine Mexican or a real Chinaman. Neither will it show how he will appear in scenes where he is to work closely with the other players—with Americans or Britishers, and with the leading lady. Maybe these are obvious considerations in tests of extreme character make-ups—but they're easily overlooked, none the less, in making "just a simple make-up test."

Costume tests can hold just as many pitfalls. And it is not always or exclusively the costumes of the principals that can give you trouble, either. Only recently I had the task of testing some costumes for the chorus of a musical film. To put it bluntly, the designer had done his best to suggest the daringly revealing costumes of chorines without literally running afoul of censorship regulations. But photographic tests were necessary to prove whether or not the photographic rendition of the costume and its wearers would be too nearly similar, and perhaps give some sensitive-minded reviewers the impression that there was too little costume and too much girl revealed.

In the comparatively close shots of normal dramatic action, the cinematographer can do a great deal to control the way such a costume would appear on the screen. Definition and gradation are both at the maximum. Furthermore, discreetly-placed shadows can conceal doubtful points.

But in long-shots of a musical number, or dance routine, the situation is reversed. Definition and gradation are almost inevitably at their minimum. And with a set lit for the high-key effects usually desirable for such numbers, and both players and camera moving constantly, very little—if any—shadowing

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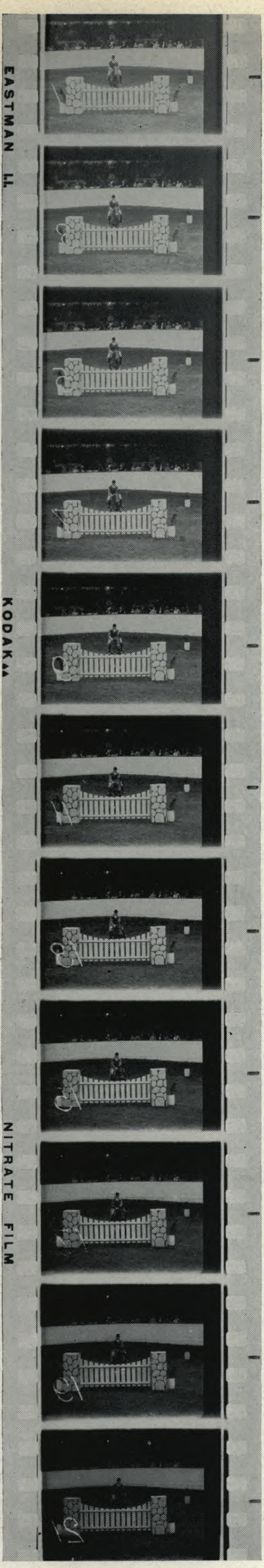

Are We Making the Most of Modern Resources?

By DANIEL B. CLARK, A.S.C.

Supervisor of Photography,
20th Century-Fox Studio

MOST of us find it very flattering to look back at "the old days" when we had only slow lenses, indifferent laboratory-work, and but a single type of negative film, and congratulate ourselves on the technical improvements of the last few years, which have given us so much better tools with which to work. We talk glibly about coated lenses, super-fast films, improved processing, and all the other recent technical improvements, and jump to the mistaken conclusion that not only are we pretty well off, but that we're very good.

And yet every so often we'll encounter something that jars us out of our self-satisfaction, and makes us wonder if, after all, we're really making the fullest use of today's resources. Sometimes we'll see a picture in which some other cinematographer has done something arrestingly different. Sometimes we'll find ourselves forced by circumstances to do things with materials and equipment we've taken for granted, but which we can't help feeling is just a bit impossible.

For example, it is almost four years since the first of today's super-fast emulsions, such as Super-XX and similar products, was introduced. It is almost two years since we first experimented with non-reflection coated lenses which give us objectives virtually one-half stop to one stop faster than non-treated lenses. For some time we have had cameras which, like the 20th Century-Fox camera with its 200-degree shutter, give us yet further increased exposure values. Our laboratory-methods are definitely capable of giving us results that would have been impossible only a few years ago.

We've utilized these developments, singly and in various combinations, as each individual or studio deemed best. But doesn't it seem possible that we may, in some instances, at least, have utilized them more in the way we thought they ought to be used than in ways their potentialities at least hinted they could be?

For instance, one suggestion the various makers of super-speed film advanced when they brought out these products was that now, when we needed for background or stock-shot purposes such scenes as a night ball-game or hockey match, a horse-show, or the like, we could go out with this new, ultra-sensitive material, and film it under its normal, practical lighting. But most of us—maybe from force of habit—when we had to film such scenes, would usually equip ourselves with several truck-loads of lights, a generator, and so on, and light the shot like a studio scene. When we couldn't for any reason, work under such conditions we'd usually pass it up or stage it expensively in the studio.

Recently, however, I was faced with an assignment like that. For possible use in a forthcoming picture, the studio wanted some backgrounds which could be shot at the Santa Barbara Horse Show. But pictures, to the show's management, were purely incidental to entertain-

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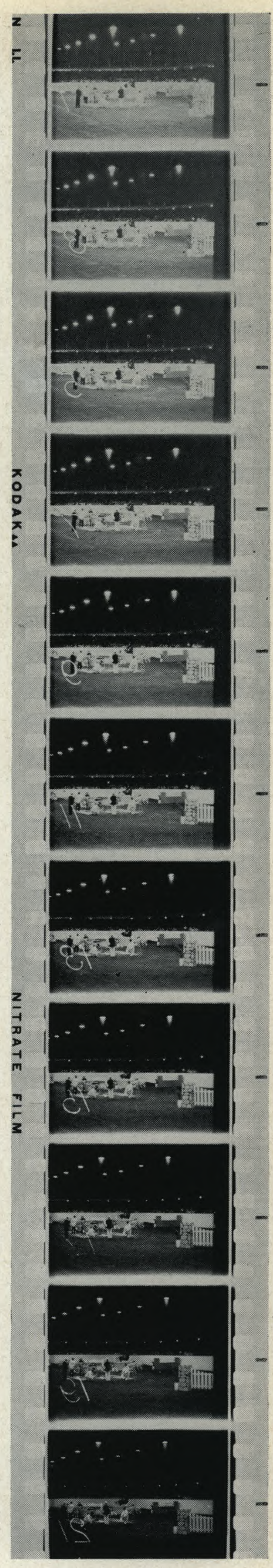
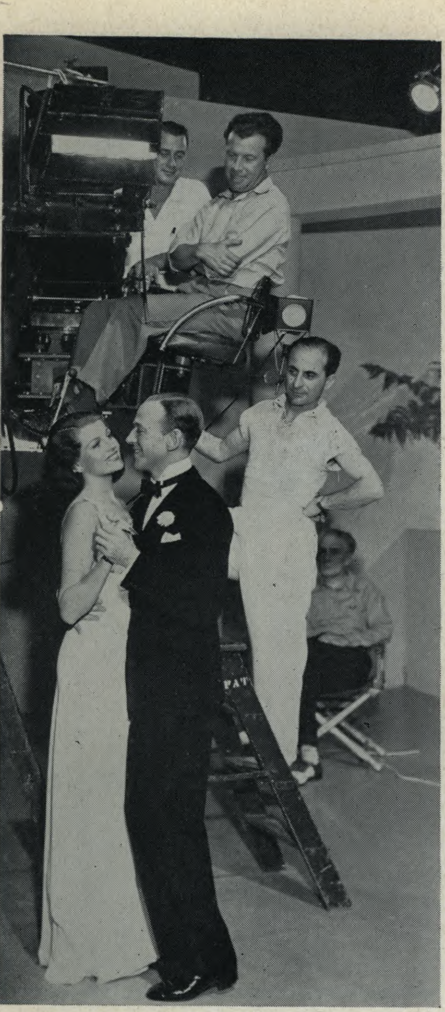


The Experimental "B's"

By PHIL TANNURA, A.S.C.



Hardly a "B!" Phil Tannura, A.S.C., (right) films Fred Astaire and Rita Hayworth in Columbia's special, "You'll Never Get Rich."

EVERY so often someone comes along with an impassioned plea that we ought to have some means of making experimental films, with which we could experiment with new ideas, new personalities and new techniques in a way that can't always be done on regular production. It's a nice idea to toy with—and one I am sure even its strongest proponents must realize is, for the present, at least, thoroughly impractical.

Besides, it seems to me we already have what is to all intents and purposes a full-scale experimental laboratory, just waiting for our use! Of course I'm referring to the so-called "B-pictures," which every studio makes, whether they call them that or not. They're unpretentious little affairs, turned out cheaply and economically—to say nothing of being made quickly. Already we've seen plenty of top box-office stars, directors and writers graduate from this unnoticed training-ground.

But so far, very few cinematographers seem to have recognized that an assignment to direct the photography of a program picture can be an opportunity to try out new technical ideas which, though they've been rolling around in the cinematographer's mind for months, he would never dare to try out on a picture of major importance until he had had a chance to prove or disprove it in practice. But on a "B" picture, so long as the resulting scene is photographically adequate, the cinematographer has an opportunity to try out new ideas without running disproportionate risks for either himself or the producer.

Take such a thing as the use of coated lenses, for example. Some studios and some cinematographers have had opportunities to make extensive tests of them, and are using them enthusiastically. Others, after perhaps equally extensive tests, don't care for them. But I know of many other cinematographers who, having had the opportunity to make only very sketchy tests of such lenses, or perhaps none at all, have told me that while the lenses seemed to offer interesting possibilities, they none the less felt reluctant to use them on their next "A" production because they didn't want to take the risk.

But suppose at that point you're assigned to a "B" picture. If you try the lenses out on a sequence or two of that picture—perhaps even the whole production—you're not jeopardizing either a big investment or the appearance of an important star, for most of your cast will probably be young players on their way up — youngsters who can stand much less careful photographic treatment than the average established "name." On your part, you're learning what the lens can do and how to use it under the only conditions that really count—those of actual production. If you succeed, you've found something valuable; if the experiment isn't so successful, you're still likely to be ahead, for you've been concentrating on your camera-technique rather than "walking through" the assignment, and the producer is likely to get a picture better photographically than he expects.

Lately we've heard a good deal pro and con about the idea of using super-fast films like Super-XX on production. One of the men who first did it—a chap who is pretty much an "A-picture" specialist—has said that he used it on some four or five productions before he felt satisfied that he had developed the right technique of handling it. Wouldn't it have been better all around if he could have done that experimental work on low-budget "B's," rather than on super-specials where his own reputation and a six or seven-figure investment were at stake? The results, scene for scene, would have been just as instructive—and he would probably have learned quicker, since he would have turned out more scenes, under more varied conditions, in the same amount of time.

Similarly, we've all of us lately discussed the so-called "pan-focus" technique Gregg Toland employed on "Citizen Kane." Gregg has admitted he developed it slowly, over a period of several years, using a bit of it here in one picture, another bit there, in another, as conditions warranted. And he himself admits, I believe, that the technique isn't by any means completely stabilized yet; there are still quite a few questions as to the how, when and where to use it that can only be stabilized by further experience. If this experimental work could be spread over an equal or greater number of program films, isn't it possible that the answer could be reached more quickly and economically?

In all of this, I certainly don't want it thought that in suggesting that the "B" picture can be used as a field for experiments, I am implying that the photography of these program releases is necessarily of a low order. Sometimes it may be, but not necessarily so, by any means. Very frankly, I have frequently seen (and photographed) "B" pictures in which I felt the camerawork was distinctly better than the same man was able to achieve in other more pretentious pictures. For there are times when, in making a high-budget picture, you may find that the setting or mood of the action aren't such as lend themselves to particularly pictorial effect. You may find a director who is not particularly inclined to cooperate with the photographer, or a star who requires a certain specialized and conservative type of camera-treatment.

On the other hand, in a program-picture assignment, you may very well find everything playing into your hands—interesting settings or locations, a story

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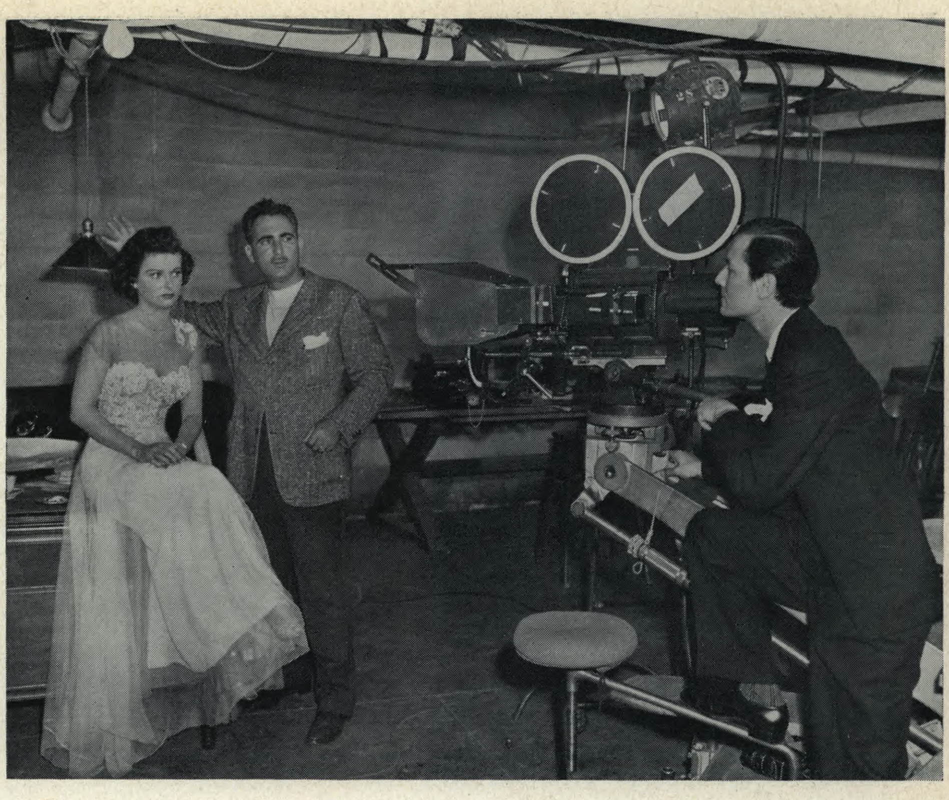

"The back-light goes here," says Leon Shamroy, A.S.C., to Maurice Liu, while Joan Bennett serves as a model in a set representing a London air-raid shelter.

Hollywood Trains A Cinematographer For China

By RAY DANNENBAUM

FOR a long time Hollywood has prided itself on being able to reproduce in faithful set-design conditions which might be met with anywhere in the world.

But when Maurice Liu, Chancellor of the Los Angeles Chinese Consulate, decided to shoot a documentary film around the current heroic struggle of his people, he little guessed that on the 20th Century-Fox lot he would find conditions so nearly parallel to those he would face in photographing the catacomb industries deep in the rock beneath the streets of Chungking, China, that the studio sets could literally serve as a classroom where he could study, under the most expert tutelage, the photographic and lighting problems he would encounter in filming his picture in Free China's bombed capitol. But he did.

Luckily for Liu, his good friend Leon Shamroy, A.S.C., was preparing to start a picture called "Confirm or Deny" just at the moment when Liu had completed his plans for a photographic expedition to China. Liu had worked in both 16mm. and 35mm., and with both black-and-white and color, but he felt the magnitude of the job before him required that he do considerable brushing up on the latest methods in lighting and other photographic essentials. Turning to his friend Shamroy for this, he found not only instruction, but a "classroom" which provided almost the exact conditions under which he would labor in China.

"Confirm or Deny" deals with an American newsman's adventures in London in December, 1940, during the height of the bombkrieg, when an alleged abortive invasion attempt was made by the Nazis. While the Chinese architecture was missing, the sets by Richard Day and Wiard B. Ihnen gave Liu an otherwise perfect duplicate of the conditions he would face in Chungking — bombed buildings, crowded cellars and air-raid shelters, with all the complex lighting and camera-angling problems he could expect to face in actuality.

So for the first three weeks of the studio film's production, Liu spent nearly every day on the set, consulting with Shamroy and learning from him all the special techniques he would need to use in his homeland.

As if the hand of coincidence wasn't strong enough already, there was an added advantage to Liu's study with Shamroy. Although Liu was born in Shanghai and has travelled extensively in China, this is his first photographic job there. Shamroy, on the other hand, knows China photographically from first-hand experience there, since in 1930 he covered not only the coastal ports, but most of the Chinese hinterland as well, serving as Chief Cinematographer for the Huntington Ethnographic Expedition.

On this trip, which is sponsored by the Chinese Nationalist Government, Liu is taking four motion picture cameras—a Bell and Howell Studio Camera, a 35mm. Eyemo, and two 16mm. Filmos. With him, in addition to such auxiliary equipment as the latest Hollywood-made portable floods and spotlights, Liu is taking 20,000 feet of 35mm. black-and-white film (Plus-X) and 10,000 feet of 16mm. Kodachrome. Stills will be shot with two Leicas, using both Kodachrome and Plus-X. And naturally after his period of schooling with Shamroy at 20th Century-Fox, Liu's choice of an exposure-meter was the General Electric which is the standard used at the studio.

Unlike most expeditions of this nature in times past, which made much of carrying portable processing equipment and processing film on the spot, Liu's exposed film will be processed in Hollywood, under Shamroy's direction. Test-strips of Plus-X will be developed on location as a control, just as any studio camera-unit would do. But film today can be relied on to withstand even the long journey from Chungking to Hollywood between exposure and development, so Liu's film will receive the benefit of being processed in one of the world's finest film laboratories in peaceful Hollywood.

Handling the Kodachrome presents a different problem. It must, of course, be processed in one of the Eastman Kodachrome processing-plants, either in Australia or in America. At the same time, due to the restricted latitude of color processes, some control is desirable. So it was decided that Liu will shoot frequent test-rolls of Kodachrome, and rush them to Hollywood via Chinese governmental planes and the trans-Pacific Clipper. As soon as the film has been

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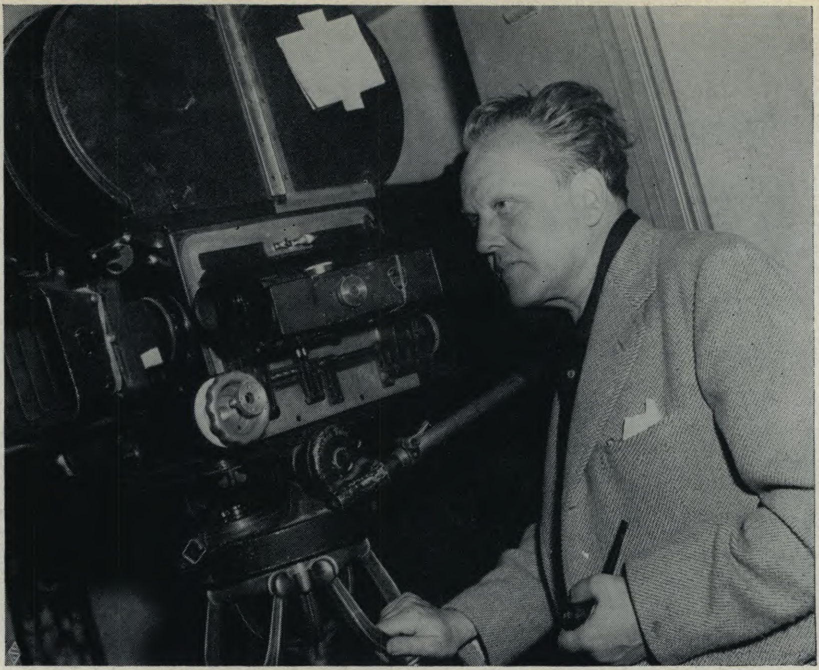
Aces of the Camera

IX:

CHARLES ROSHER, A.S.C.

By WALTER BLANCHARD

IF you were a movie-goer during the years when Mary Pickford was "America's Sweetheart," you probably saw many a 24-sheet billboard advertising her films. And on these billboards, in addition to Miss Pickford's name, the title of the picture, and mention of the supporting cast, you'd see, in letters every bit as large and prominent as those naming the director, "Photographed by Charles Rosher." It wasn't, as it would be today, "Charles Rosher, A.S.C," because at that time there simply *wasn't* any A.S.C. for Rosher or anybody else to belong to. He remedied that in 1919 when, with Victor Milner, Arthur Edeson, and a handful of other top-flight cinematographers, he founded what has since become the world's foremost cinematographic organization.



Mary Pickford's insistence on crediting and publicizing Rosher coequally with her director was another instance of that Pickford business sense which has become legendary in Hollywood. After all, when you strip all the glamor and romanticized publicity away from it, a movie-star's fortune is literally wrapped up in the way she appears on the screen. And "Little Mary" safeguarded hers by entrusting it to Rosher who, then as now, was one of the industry's acknowledged masters of the intangible art of photographically glamorizing women. Directors and leading men might come and go, but for more than a dozen years—right up to her retirement — no one but Charlie Rosher could be trusted to photograph the First Lady of Hollywood.

More than a few other picture-wise stars have felt the same way about Rosher's skill: Joan Crawford, Constance Bennett, and plenty of others right up to such representative of America's 1941 sweethearts as Martha Scott and Priscilla Lane have insisted that Rosher photograph them.

And they've reason enough! Go to see any picture that has come from his camera: it may be a spectacularly pictorial job like "Sunrise" which, back in 1927 won for Rosher and Karl Struss, A.S.C., the very first Academy Award for photography, or like any of the many more recent releases which have pushed his name repeatedly among the Academy Award nominees and "preview poll" winners. Or it may be a strictly unpretentious programme-picture of the sort which offers the cinematographer little or no chance for personal distinguishment. But you'll have to look mighty closely before you see any player given even a second's unflattering photography!

For that's the way Rosher attacks a picture. "After all," he says, "there are pictures—and pictures. Sometimes things will play into the cinematographer's hands: the locale or period may be one that will give him spectacular settings and costumes; or the story may be such as to give him an opportunity for spectacular dramatic mood and effect lightings. In a case like that, the man at the camera can hardly help turning in a spectacularly pictorial job of camerawork.

"But on the other hand, there are other pictures—not all of them, by any means, in the 'B' or programme classification—which inherently offer the cinematographer nothing pictorial. The setting may be prosaic or downright ugly; the action may be light comedy-drama in a mood which can only be given conventional, crisp, high-key treatment.

"But there are always the people! And they're the element the public buys its way into the theatre to see. So it stands to reason that we should concentrate our photographic efforts on them—on keeping them looking always as attractive as the public wants them to be.

"Both technically and psychologically, this is a challenge. You've got to know what is the right mental approach to the task of photographing each star just as much as you must know the right technical means to employ. And what's right with one star may be utterly wrong with another one who has a different temperamental make-up. That, I think, is one reason why a star, given a choice between two or three cinematographers of actually equal attainments, may insist on one certain man in preference to others.

"For example, you'll find some stars who approach their work from a technician's viewpoint. They know certain angles or actions are good, and that certain others make them photographically unattractive. They want you to tell them just what to do and what not to do —and on the set they give a fine performance even though all the time they're carefully avoiding doing those things you've warned against.

"On the other hand there are other players — every bit as capable — who just aren't made that way mentally. If

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A.S.C. on Parade

Joe Ruttenberg, A.S.C., admits having been a bit flustered lately. Seems his daughter got married and Papa **Ruttenberg,** faced with the duty of giving the bride away, was even more nervous than the bridal pair!

●

Congratulations to **Lee Garmes, A.S.C.,** not only for the splendid job of camerawork done on Korda's "Lydia," but for the break he gave cinematographers in general by getting solo title-billing as "Director of Photography and Associate Producer." Incidentally, **Lee's** repeating in Technicolor with Korda's "Jungle Book," ably assisted by **Duke Greene, A.S.C.**

●

Farciot Edouart, A.S.C., his Technicolored transparency scenes for "Reap The Wild Wind" safely in the box, off to parts unknown for a well-earned vacation. Seems almost wrong, though: this year he got away without borrowing our pet exposure-meter as in years past to keep his Leica and 8mm. Kodachromes "on the nose"—! Seems after last year's holiday he broke down and bought himself a shiny new Weston "Master" like the one he borrowed from us.

●

A.S.C.-Prexy. **Fred Jackman** and the Missus back from their vacation, spent at Sun Valley, Glacier Park, and similar resorts north and east. And you should see the fat packet of Leica stills—good ones—they brought back! Seeing them, **Fred, Jr.,** remarked "Gee, that camera sure takes good pictures!" Now **Fred, Sr.,** has challenged **Fred., Jr.,** to a duel with Brownies!

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Another returning vacationer is **Ernest Palmer, A.S.C.,** who also picked Glacier Park for his between-pictures rest.

●

There's a great concentration of high-powered photographic talent working on the Arnold Pressburger-United Artists' production "The Shanghai Gesture," what with **Josef Von Sternberg, A.S.C.,** as director of production, and **Paul Ivano, A.S.C.,** (just back from Argentina) as director of photography. It's a cinch to emerge one of the year's best-photographed productions!

●

Add "long arm of coincidence:" last month, getting THE AMERICAN CINEMATOGRAPHER to press, one of the last things we did was insert an item in "A.S.C. On Parade" telling about **Robert Pittack, A.S.C.,** being busy on the first of Hal Roach's streamlined featurettes. Then we dashed out to Glendale to catch a preview—of Roach's "Tanks A Million," photographed by that same **Bobby Pittack!** As if that wasn't enough, dropping in at the Tam O'Shanter for a snack afterwards, who should follow us in but **Bob Pittack, A.S.C., George Clemens, A.S.C.,** and their two charming better halves, also intent on refreshments!

●

And while we're plugging Maestro Roach's streamliners, we might as well state that **Pittack,** (batting for Roach) and **Al Gilks, A.S.C.,** (batting for Technicolor) have just wound up shooting Roach's Technicolored "Fiesta," grinding out an unbelieveable number of scenes in 15 days' shooting. And good, too!

●

Lady Luck seems to be smiling on **Ray Fernstrom, A.S.C.,** lately. He postcards from his post as Director of Photographic Art for Vancouver (B.C.) Motion Pictures, that he has no less than seven pictures currently on the screen—all in color. They include, "Sail Ho!", "It Happens on Rollers," and "Lions For Sale," for Warner Bros.; a Cinecolor short, "Beautiful British Columbia," appropriately for Columbia; and "Memories of Europe," a FitzPatrick traveltalk in Technicolor, to say nothing of four other Technicolor reels made for the same producer in Holland, Switzerland and Ireland which are still playing.

●

Last month we mentioned that **Vern Walker, A.S.C.,** hooked a 300-pounder and lost it. Next time he went fishing, though, he got one almost as big—and landed it. **Vern** must have something of a reputation around RKO as a teller of tall fish-tales, though, 'cause when he landed this one he was so intent on furnishing proof he had his prize trucked to Hollywood and put it on display at the studio! Most folks would be satisfied to show a snapshot—but **Vern** couldn't: who'd believe a fish-picture made by a tricky chap like **Vern,** whose business is making the camera lie like a trooper anyway?

●

The other day we sneak-glimpsed a reel or so of the stuff **Charles Lang, A.S.C.,** lensed for Walter Wanger's "Sundown." If the picture is equally good, maybe **Charlie** will be able to collect another Academy "Oscar" to go with the one he won a few years ago; anyway, the scenes we saw were gorgeous.

●

Be careful if **Karl Freund, A.S.C.,** mixes you a highball. Two of them would be almost enough enough to make an assistant director say "No" to Cecil DeMille! And we can also report in glowing terms of **Karl's** swimming-pool as an ideal place to spend a hot afternoon.

Polito, Edeson Top Preview Poll

Top honors in virtually every classification of the Hollywood Reporter Critics' Preview Poll for July went to the Jesse Lasky-Warner Bros.' production "Sergeant York." Going over the top with the sergeant for first photographic honors were the film's two directors of photography—**Sol Polito, A.S.C.,** who filmed the production sequences, and his associate, **Arthur Edeson, A.S.C.,** who filmed the battle sequences. **Merritt Gerstad, A.S.C.,** took second place for "Tom, Dick and Harry," while **Joseph Walker, A.S.C.,** was third for his notable work on "Here Comes Mr. Jordan."

In this connection, we'd like to ask why, since the battle sequences in "Sergeant York" formed such a notable part of the production that director of photography Edeson received special screen credit for filming them, the Reporter, in its list of Poll winners, failed to mention him, though they found space to credit no less than four writers for their work in scripting the same picture?

Charles Rosher, A.S.C., dining at the Gotham and doing a rave on the swell camera-job **Lucien Ballard, A.S.C.,** turned in on 20th-Fox's "Wild Geese Calling."

●

Johnny Mescall, A.S.C., looking uncommonly fit, dropping in to say hello before taking himself a vacation.

●

Our apologies to **Phil Tannura, A.S.C.** Seems we let the cat out of the bag last month when we mentioned he sneaked in to see "Manpower," which Mrs. T. had been urging him to take her to —! There's a boy who's been mighty busy lately: since he inked his Columbia contract only a few months ago, he's lensed one "A" feature, three or four "B's" and a short or two!

●

Did you know that **Barney "Chick" McGill, A.S.C.,** had been very seriously ill these last six months with a near-fatal heart-attack? He's beginning to get out and around now, but he'd appreciate visits from his friends.

●

Over on Warner's "The Man Who Came to Dinner" set, **Tony Gaudio, A.S.C.,** battling a personal tummy-ache. Maybe there's one man who didn't look too closely at where he came to dinner—!

●

John Alton, A.S.C., dropping in to help our rather poor knowledge of Spanish by translating a bunch of letters received from Latin-American readers.

THROUGH the EDITOR'S FINDER

A PICTURE was recently previewed, the work of an outstanding director of photography who made with it his debut as a director. Next morning we noticed the trade press went violently out of its way to damn the direction—almost as rabidly as though the man in question had refused to take advertising space in their pages.

Unfortunately, we did not see the picture, though we intend to. So we can't say whether or not that condemnation was justified. Offhand, we'd say from what we personally saw on the set that it wasn't. And we know of plenty of instances where these trade-paper authorities have reviewed first-production efforts from "directors" drafted from other fields, where the direction, to our mind at least, was most pungently amateurish, and sidestepped the issue by ignoring direction, and concentrating their verbal bricks and bouquets on cast, writing, and similar aspects. We can't help wondering why, in this case, they went so far out of their way to slap a good man down.

Maybe they expected too much. That is almost always the case when a cinematographer turns to direction. Press, producers and all seem to expect him, because of his technical mastery of the medium, to be able to do more than miracles—to rise above all the limitations of story, casting, budget, schedule and the rest, and make a cinematic silk purse out of a dramatic sow's ear. No conceivable amount of technical mastery can make this super-miracle possible.

Well, we're going to see that picture. We want to see for ourselves whether the august trade-paper demigods are correct in their unrestrained slams at direction, or whether it might be good direction handcuffed by less than B-picture budget and schedule, implausible story-construction and dialog, and a cast which (as we recall the printed credits) seems to exude a strong aroma of ham and fine old whiskey.

•

WE can't think of anyone to whom the camera profession owes a bigger debt of gratitude at this time than Gregg Toland, A.S.C. Opinions may differ as to the technical and artistic merits of what he did in bringing Orson Welles' "Citizen Kane" to the screen, but it cannot be gainsaid that the arresting visual treatment he gave that film has done more than any other single achievement of the last twenty years to make the public at large conscious of the cinematographer and the creative part he plays in making a motion picture.

Moreover, even within our own ranks Toland's "Citizen Kane" technique has acted like a tonic. Some cinematographers are fervently enthusiastic about it, pointing out that while it is based on obvious and familiar photographic principles, the particular combination Toland devised, and their application to practice as in "Citizen Kane" constitute one of the very few radically new cinematographic concepts in the last decade or so. Others, with equal vigor and sincerity, hold that this technique means a departure from all the standards of good photography toward which we have been striving for so many years.

In other words, good or bad, "Citizen Kane's" photography is making the industry's cinematographers think more seriously about what constitutes good cinematography than any picture since Karl Freund's "Variety" of fifteen years ago and the pioneer Billy Bitzer-D. W. Griffith achievements some ten or fifteen years before that. As such, it is doing the entire camera profession a good turn—jolting it out of the complacent acceptance of doing things thus and so because that is the accepted way, which has been all too apparent in almost every studio.

"Citizen Kane" and its "pan-focus" technique may be a flash in the pan; we're as yet too close to it to know. But in making the industry's cinematographers think and talk analytically about their work, it is serving a useful purpose. After all, we can't make much progress in anything unless we've a clear mental impression of what we're striving for. And even to those cinematographers who disagree most violently with Toland's ideas, the controversy is giving a new and clearer perception of the kind of camerawork they consider the goal to be attained.

•

AS more and more Technicolor pictures are being made, an interesting professional problem is developing. Is it, or is it not advisable that the production cinematographer have with him a Technicolor cinematographer? Both sides of the question have ardent advocates, and good arguments to commend them.

Those who feel the production cinematographer should work alone point to the fact that it has been done, and successfully, in several instances. They point out that the Technicolor cinematographer, as an employee not of the studio but of the color-company, tends inevitably to take the conservative path, avoiding innovations in lighting and similar techniques. And they say that only by taking some chances—by trying an occasional daring experiment—have we advanced the artistic scope of black-and-white camerawork: therefore, taking the safely conservative course can hinder the advance of color. And for their crowning argument many of them point to the constantly-increasing use of Technicolor as an indication that eventually all major productions will be made in color: so, they say, there will certainly not be enough Technicolor specialists to make possible that sort of teaming then—so why do it now?

Those who take the opposite view have equally good arguments. Color is new, they point out, and failures even more expensive and embarrassing in color than in black-and-white. Therefore why not take advantage of having with you a man who is thoroughly versed in the proven limitations and possibilities of the process After all, it's to your own benefit! Further, many of them state, modern production has become so complicated that even in black-and-white it would be of great advantage to the cinematographer and studio alike that the director of photography have associated with him an associate director of photography to lessen the physical demands of what is actually a strenuous two-man job. In color, with its greater complication and acknowledged technical limitations, such collaboration is even more desirable, so since it is already an established practice, by all means continue and encourage it.

With such valid arguments on both sides of the question, we're certainly not taking sides. But it seems to us it could stand more extensive discussion, both in these pages and elsewhere.

•

We can't help wondering if the present shortage of materials used in making amateur cine-cameras and equipment may not, in the long run, turn out to be actually beneficial. The Government agencies charged with conserving our supplies of aluminum, steel, copper, etc., for use in defense industries point out that many articles ordinarily made of these metals can very well be made, not only as well, but possibly better, from modern plastics.

We have an idea that 16mm. and 8mm. home-movie cameras might very well be in this class. After all, even since the advent of sound some thirteen years ago, studio cine-cameras have been making use of plastic gears; some European studio cameras have made use of plastics for film-magazines and similar parts, and at least one we've seen made use of tough, semi-resilient plastic, reinforced by a single, steel frame-plate, for the entire camera-housing.

According to some of the reports we've read, there are plastics now available that offer much the strength of steel, and which can be moulded, shaped and machined in ways sometimes superior to the way we are accustomed to handling metal. So is it too far beyond the range of possibility to look forward to a home-movie camera which, with the exception of its steel spring and glass lens, would be made wholly of light, strong plastics, and capable of even greater mass-production than our present types of construction?

PHOTOGRAPHY OF THE MONTH

THE LITTLE FOXES

Samuel Goldwyn Production; RKO-Radio Release.

Director of Photography: **Gregg Toland, A.S.C.**

Gregg Toland's first release since "Citizen Kane" is a worthy successor to that memorable achievement. It could hardly be hoped that in any production made under more standard conditions than applied during the making of the Orson Welles film the visual and dramatic aspects of presentation could be so perfectly integrated, and even though "The Little Foxes" is the product of one of Hollywood's most brilliant teams—Producer Samuel Goldwyn, Director William Wyler, and Director of Photography Toland—it inevitably lacks that perfect coordination. Much of this can of course be traced to the material, for "The Little Foxes" is after all a picturized stage-play, rather than an original created directly for the screen. It is more verbal than visual in its dramatic approach.

But for all that, "The Little Foxes" is a picture no one should miss. Dramatically gripping, it is one of the most impressive displays of technique—the technique of writing, acting, direction, art direction, and every other phase of film craftsmanship — ever screened. You may not always agree with the concepts of its makers, but they make you think, and think seriously, about the skill and originality displayed.

Toland's contribution is as usual outstanding, and upholds his reputation for photographic daring. Few cinematographers would have the courage to present a great star as he presents Bette Davis; fewer stars and producers would have the courage to agree with that presentation as do Miss Davis and Producer Goldwyn. For Toland saw the film's central character as a woman twenty years past the first flush of youth — hardened, bitter, avaricious, scheming, almost wholly devoid of any admirable qualities save perhaps strength. And his camera and lighting made her that way, almost completely avoiding any softening or glamorizing treatment. So subtly that it may easily pass unnoticed, Toland's sensitively-keyed camera treatment of the players does much to strengthen the dramatic power of their vividly-etched characterizations.

As might be expected, Toland makes extensive use of the so-called "pan-focus" technique which has received so much publicity since the release of "Citizen Kane." In the main, it is effective, too, though there are some scenes which clearly display weaknesses of this technique which show how carefully its use must be pre-planned, lest it harm as well as help a picture. For example, there are some scenes, played with this increased-depth technique, in which it seems definitely to detract from the compositional and dramatic value of the scene. With two or possibly three players carrying important action in the immediate foreground, and two or three others visible between them, carrying equally significant action in more distant planes in the background, the composition at times seems scattered; the eye hardly knows where to look. In consequence, the dramatic force of the scene is weakened—scattered—in a way that would not be the case had the composition been more simple and direct.

Similarly, in the climatic scene in which Bette Davis sits unmoved through her husband's heart-attack, coldly refusing to get him the medicine which might save him, a more conventional presentation is used—and one misses the more realistic "pan-focus" depth which has heretofore been used throughout the picture. Miss Davis is shown, in a medium-shot angle, sitting unmoved, following with her eyes the movements of the stricken man as he is heard staggering from one piece of furniture to another beyond camera-range, crossing behind her, and finally crawling laboriously up a flight of stairs in the background, only to collapse halfway up. In this shot—almost alone in the whole picture—the background is thrown deliberately out of focus. It may be necessary for dramatic reasons —to lessen the shock to audience sensibilities—but following upon some eight or ten reels in which the background was crisply defined, it also gives the audience a sense that something is lacking—a sense, perhaps, of artificiality. If Toland's "pan-focus" or other similar depth-increasing techniques come into more general use, as appears likely, this is a problem that will deserve careful study; it is certainly not as yet solved.

LYDIA

Alexander Korda Production; United Artists Release.

Associate Producer and Director of Photography: **Lee Garmes, A.S.C.**

It has been an unduly long time since American screens have seen an example of Lee Garmes' hauntingly pictorial camerawork. But "Lydia" makes up for that: it is Garmes' camera-pictorialism at its best, with scene after scene of memorable beauty. And in his dual capacity as not only Director of Photography but as Associate Producer, Garmes rings up a distinguished hit for himself on both counts.

Photographically, "Lydia" is a delight. Garmes' compositions and lightings are perfectly keyed to the diverse moods of the action, ranging from idyllic beauty to austere menace. One entire sequence—the "dream ball"—depends almost wholly on the camera for its effect. Filmed on a set of almost extravaganza proportions, it makes use of slow-motion camerawork to impart an air of poetic unreality to what is later shown to be a young girl's idealized memory of what was after all a rather prosaic function.

Garmes' camera-treatment of the players is excellent. Merle Oberon, in particular, benefits greatly by his skill; we have seldom seen her photographed to such good advantage.

The other technical contributions are of an equally high order. The make-up, credited to the House of Westmore, is a noteworthy example of fine character-makeup, for it takes the five central characters through a forty-year span from youth to age, and does it—with the possible exception of Miss Oberon's eyes—with remarkable believeability.

The settings, jointly credited to Production Designer Vincent Korda and Associate Art-director Jack Okie, are outstanding. We're glad to see Okie's name again on the screen, for he is one of our more skillful art-directors. A few words of criticism cannot be avoided, however. In many instances the backings used are not of the most convincing quality, and intrude a jarring note in an otherwise excellent ensemble. Similarly, too, the canopy used over the penthouse terrace where the characters meet for the first time in forty years seemed to us too strongly patterned; its highly-contrasted black-and-white striping formed an intrusive element in the composition of the longer shots, and made it visually difficult to concentrate attention on the people.

The musical score by Miklos Rozsa was another highlight, though once or twice it seemed unnecessarily intrusive. The special-effects work by Lawrence Butler was good, and Director Julien Duvivier's contribution excellent. Several sequences in the preview print were marred, however, by a noticeable unsteadiness. This might have been in the camera, but it might also have been in either the printer or the projector individually involved. We hope it was one of the latter, and hence remediable, for it detracted from an excellent picture.

OUR WIFE

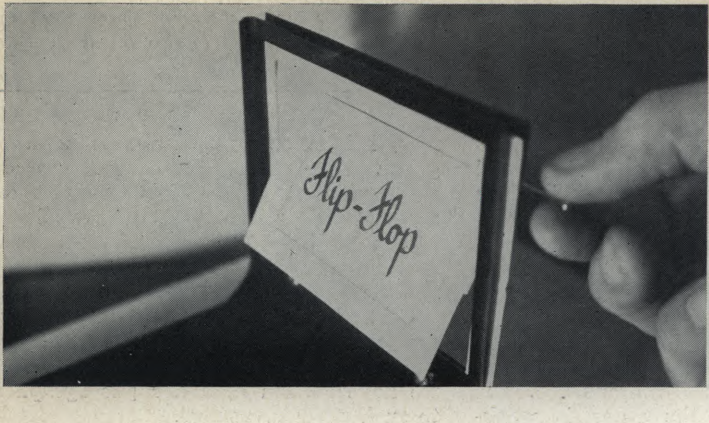
Columbia Production.

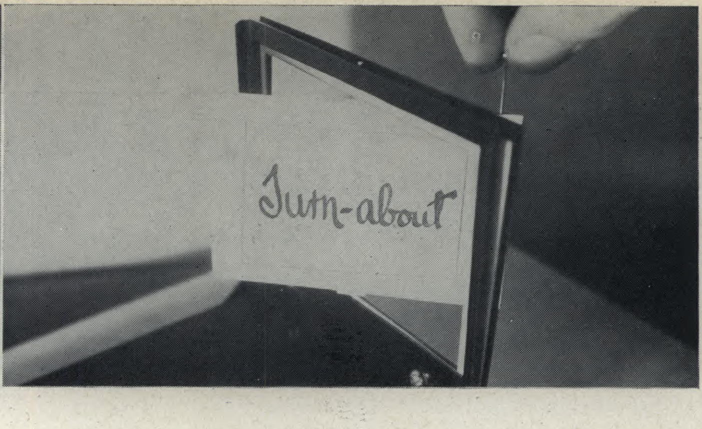
Director of Photography: **Franz Planer, A.S.C.**

"Our Wife" is the first example of cinematographer Planer's work this reviewer has chanced to see. It leaves a most satisfying impression. His camera-treatment is sensitively-keyed, highly pictorial, and conveys an impression of richness which does a great deal to enhance the production.

His treatment of the players is gen-

(Continued on Page 451)





TYPEWRITER TITLE TRICKERY

By ROBERT W. TEOREY

Los Angeles 8mm. Club

ALMOST every movie-maker possesses a typewriter-letter size titler. To the average owner, this auxiliary device appears limited to fixed or stationary titles and in consequence there is no variation from the lead and explanatory titles to the wordings interspersed throughout an entire reel.

A modicum of variety in title presentation adds a large measure of interest to any program in addition to improving the amusement value of our home movies considerably.

But even though you have only this small titler to work with, you can enliven your titles at a minimum of trouble and hardly any expense. And, in the end, you will have adaptations that will put your titler on a par with devices costing several times your present investment!

The prime requisites are heavy cardboard, pins, a couple of paper clips, some large corks, Scotch tape and a razor-blade to be used as a cutting tool. These requirements are almost too simple and may seem slightly open to question; but the results obtained in forming these materials into trick title devices will tell a story in action titles that will amply reward you for your efforts.

Figure 1 reveals what may be termed a Flip-flop—although in operation it is anything but the latter half of that hyphenated word. This adaptation has a title on each side of the cardboard rectangle framed in the center of the easel. During filming—when sufficient exposure has been made of the opening title—the title on the reverse side is flipped into position by the simple expedient of rotating the center-piece by means of a pin inserted as a handle at one edge.

A bit of mystification may now be added to this set-up by pasting a new title over the opening title which is now on the side away from the lens. Start the camera and add a short length to the footage already exposed of the second title and then flip the piece back to its original position. This brings the new or third title to view. The illusion thus created is that three titles have very smoothly materialized from the single section of cardboard mounting.

Figure 2 is similar to the Flip-flop with the exception that it operates in a horizontal plane.

These two title set-ups are prepared as follows: A section of cardboard is cut to the exact outside dimensions of the titler easel and inserted therein. A pencil outline is then made of the easel aperture after which the section within the line is cut out with the razor-blade. From this—the title area—approximately an eighth of an inch is trimmed from the edges with the exception of small sections at the points to be pivoted. The piece is then re-fitted in the cut-out frame and pivoted at the exact center of rotation by means of pins thrust through the edges of the cardboard. Titles may be printed directly on the center-piece, or printed separately and attached by tape or pasted lightly by the corners, as is the case of those illustrated.

The Zoom title gadget depicted in figure 3 is a rectangle of cardboard somewhat larger than the easel so that when drawn back for the beginning of the movement the edges of the card will not be visible during the projection of the opening frames of the title.

This card is thumb-tacked to the end of a 3- or 4-inch length of wood. More thumb-tacks are lightly pushed into the table in rear of the easel to provide a guide track for this base to follow in the forward motion so essential to provide the zoom effect. The lower edges of the cardboard on each side of the block are trimmed to provide clearance for the assembly to glide over the guide tacks.

Print your titles on paper the size of the rectangle and secure with tape or paste as mentioned before. Draw the assembly to the farthest point allowed by the track; start the camera and move the zoom device up against the easel and the opening effect of this arrangement is effected.

The spinning arrangement (figure 4) consists of a section of cardboard fitted in the spring-back of the easel, and a round piece large enough to hold a title background of the size determined by the titler-mask. The pivot is a small nail which has been pushed through a bit of cardboard and cemented at the exact center of the disk. The nail is then thrust through a hole centered in the easel card and a large cork is pushed over the nail to hold the assembly in place. A pin inserted off-center in the cork serves as a spinning handle.

To secure the effect of one title spinning into another, square your first title on the disc with the titler-mask and expose sufficient footage for the wording. Then, while the camera is still in operation, spin the title. While the title is rotating, stop the camera. Now replace the lead-title with the one next in order, and after squaring this with your titler-mask, expose for the text.

The appearance on the screen will be that of the first title spinning into the second one without a noticeable break. It makes a very effective and novel transition, and may be repeated as often as required to complete a sequence of titles.

A cardboard tube is very useful for the drum title arrangement figured in 5 but if none is available one can easily be made in the manner of the one pictured here. A piece of pliable cardboard of the desired width was rolled about a soup-can and the edges were taped together forming the tube. The up-ended can or similar material patterned discs for the ends. Corks glued to the centers of the discs formed substantial bases for the pivots. The circular sections were then fitted into the tube ends and permanently set in place with a few drops of glue.

The holding frame consists of a single piece of cardboard fitted in the easel. Two vertical flaps are cut in the section framed in the easel and bent to the rear and trimmed to accommodate the drum. The off end of the drum is mounted in place with a pin while the other end is held in place with a bent paper-clip which serves as an operating handle. The end of the clip pushed into the drum end is flattened by blows of a hammer to prevent it from twisting in the cork when the tube is revolved.

Typewritten or printed titles may be secured to the drum with tape, thus making it easy to interchange them. Center the title; then photograph the visible length and when this has been read through once slowly turn the drum, bringing to view the remainder of the text.

The scroll title frame is also fashioned from a single length of cardboard. However, this piece extends about an inch above the top edge of the easel. Two flaps have been cut and bent inward on this section to hold a round piece of wood which is held in place at one end with a pin and at the other end with a bent paper-clip which serves as a winding handle.

A slit has been cut in the cardboard near the lower edge of the easel opening (figure 6). The length of paper on which the title is typed or printed is brought through this slit from the rear and the top edge is taped to the roller.

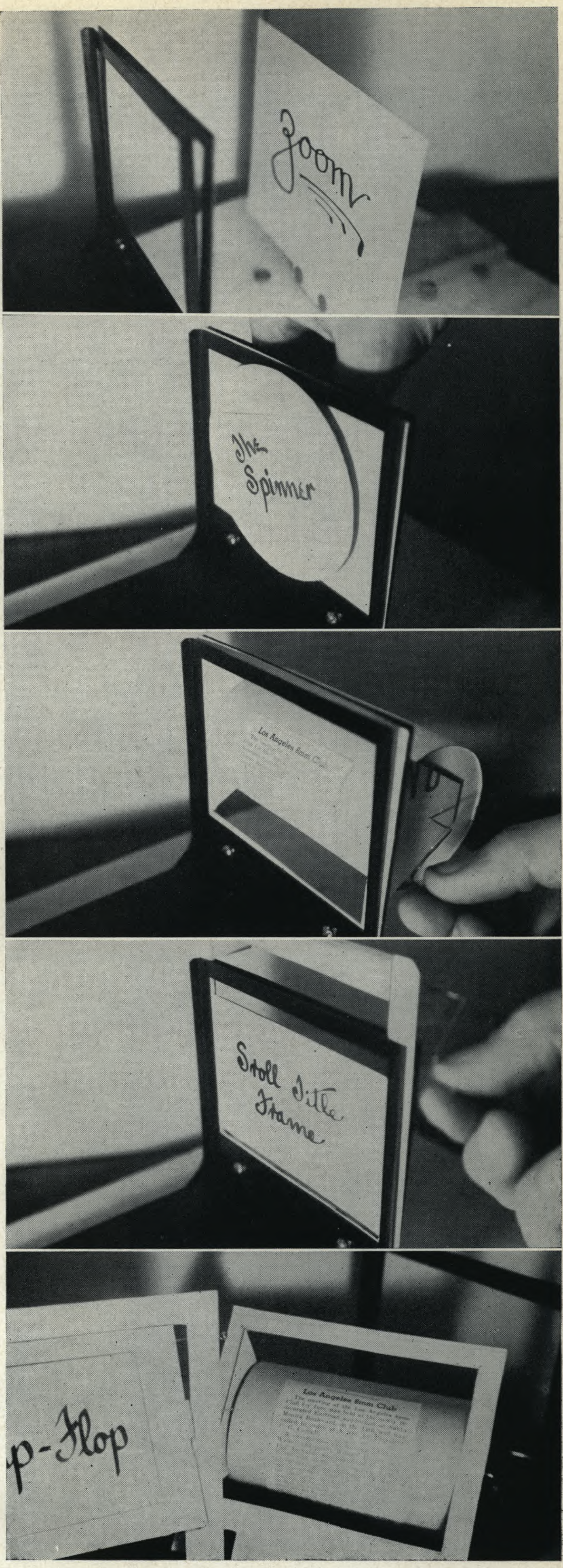
Expose your camera until the visible words have been read through once, then very slowly and evenly start winding the paper on the roller, bringing to view the balance of the wording.

Figure 7 illustrates the Flip-flop and drum after being removed from the easel.

Only six methods of action titles are illustrated. However, there is no limit to title trickery. Many variations may be worked up—and quite simply, too. Those having the Eastman titler can photograph a sequence of two titles by exposing for the first title and then pushing the easel forward. Replace with the second title, start the camera and return the easel to its upright position. Nothing extra is required and the effect is gained through the fact that the easel can be manipulated.

For a lead and two follow-up titles

(Continued on Page 444)



On opposite page, left, Fig. 1; right, Fig. 2. On this page, from top down, Figure 3; Fig. 4; Fig. 5; Fig. 6 and Figure 7.

Edit Your Films The Professional Way!

By WILLIAM HORNBECK

Supervising Film Editor
Alexander Korda Productions

ONE thing the professional film-editor finds amazing about amateur movie-making is the way so many amateurs seem to consider that editing and splicing film mean the same thing. To the professional, they don't. Editing necessarily includes the mechanical operation of splicing, but it doesn't end there by any means, any more than writing begins and ends with the mechanical act of sharpening a pencil.

As a matter of fact, the modern film-editor seldom, if ever, does any actual splicing. He (or she, for many of our best editors are women) cuts the film—arranging the scenes in their most effective order, shortening this scene or that sequence, suggesting how another should be built up with added scenes, choosing between this angle on a given action, and that one. But as a rule somebody else makes the actual splices, for the film-editor's work is creative, rather than merely mechanical.

But how often all of us have seen 16mm. and 8mm. films whose makers have "edited" them by simply cutting off the leaders from 100-foot or 50-foot laboratory reels and splicing the footage together on a larger projection-reel, possibly adding main and end titles! To the professional, this is about equivalent to the first rough assembly of a studio production, with the identifying scene-numbering slates trimmed from each scene, and the various shots arranged in numerical sequence. It is at this point that the real task of editing begins!

What happens next? Well, suppose we follow through the editing of a typical vacation picture and see how the professional would go about it.

Most vacation films are almost inevitably shot more or less in sequence: you start from home, you go some place, then maybe look in at another resort or city en route, and finally come home. You don't very often back-track over much of your vacation trail, so if you assemble your vacation-film footage on a projection reel with the scenes you shot first at the beginning, and the others following in pretty much the order they were shot, you'll probably find your scenes in about the correct sequence to give a good picture of your vacation route.

While you're making this assembly, snip out not only the leaders and the fogged strips where you hurriedly reloaded your camera in too-bright light, but eliminate, as well, those occasional fogged frames where your camera ran down and left the shutter open, the false starts you made where you had to stop in the middle of a shot because your actors did the wrong thing, or where you forgot to wind the camera.

At this point, it's a good idea to study the film over on the screen once or twice. This will show up more things that have got to be eliminated—scenes where you forgot to use your meter (or used it carelessly) and which show up as over- or under-exposures on the screen, shots that are uninteresting, and so on.

This is a good time, too, to look squarely at one of the big menaces to all amateur vacation films, and nip it, so to speak, in the bud. Most of us, when we go vacationing, are likely to combine travel with visiting friends and relatives. And the film-record of the trip is likely to include not only shots of the places we went and the things we did, but the scenes we made of Aunt Dolly and Cousin Henry, so the folks at home could see what they looked like.

These latter shots are invaluable as matters of personal and family record, but we might as well admit they aren't likely to be very interesting to the average audience. So let's eliminate them from our picture right away, and keep them as a special "supporting feature" to be shown only at family gatherings. The picture will be a lot the better for it.

Now—if you're reasonably honest with yourself—you'll begin to see spots where the picture is slow and draggy. Usually it's an oversupply of "pet shots"—pictorial gems in themselves, but so darn similar they're repetitious. Maybe you saw a landscape you liked, or a waterfall, or a sunset, and filmed it from half-a-dozen slightly differing angles, or with different exposure or filterings. For the sake of argument, we'll say you're a good enough photographer so they're *all* first-class photographically; but too many of them, repeated, will get the audience so tired of that particular vista that none of them seem good. You'll do much better to eliminate half or three-quarters of each of these pet-shot sequences.

I remember one amateur picture I saw, which ended up with one of the most spectacular Kodachromed sunsets anyone could ask for. The man at the camera had done a good job. He had a succession of shots the beauty of which any audience—amateur or professional—would spontaneously applaud. But the same sunset, twelve times repeated, ended what might have been a swell picture on a note of boredom.

By the same token, remember that even if you did capture some lovely Kodachrome sunset shots, there's really no law that compels you to use them for the end of your picture. It's all right—but so many other filmers have done the same thing that most movie-wise audiences snicker—and reach for their hats—when a sunset-shot comes along to telegraph word the end-title is coming. Much better use some less conventional ending, preferably something with a sur-

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Selecting Music For Your Vacation Movie

By WILLIAM STULL, A.S.C.

MUSIC may—or may not—have charms to soothe the savage breast, but there's no doubt a well-chosen musical accompaniment can certainly soothe audiences into thinking better of the home-grown movie. And since movie-makers all over the country have added scoring (via the twin-turntable and phonograph-record route) to their movie-making hobby, the question of choosing the right records to accompany home-movie showings is becoming fully as important as filtering, editing, or any more strictly photographic problem.

For most pictures, though, this problem isn't nearly as serious as it seems, for with the exception of the more "plotty" scenario films, a musical score for a home or vacation movie is best if it is kept a simple accompaniment, rather than an intricately-arranged thematic score. Of course it's nice to tailor an almost professionally thematic accompaniment, with a musical change for almost every change of camera-angle—but performing it in the dark, while you're worrying about how the volume is for the folks down front, and what in blazes the projectionist is doing with projector-speeds is an entirely different matter! Your elaborately-cued score is likely to go very sour indeed, and end up by being almost worse than no music at all.

The best practice, therefore, is to keep your scores simple, letting each record provide a musical background for just as much footage as it possibly can. Of course, now and then we strike abrupt changes of mood, action or tempo which simply stand up and yell for a change of music. When that happens, we've no alternative except to give in and dish up another platter. But wherever possible, choose your music so you can simply put on one record and play it completely through, following it with another that's to be played completely, and so on.

Second in importance only to simplicity, and blood brother to it, is the matter of keeping the music in the background, rather than letting it get "out front" to be a show in itself. For this reason, steer clear of familiar tunes (especially popular or frequently-played classical ones.) They (or their titles) may express the mood of your picture perfectly: but when they start, half your audience is likely to prick up its mental ears and say "Oh, I danced to that (or heard it on the radio) last night!—meanwhile momentarily forgetting the picture entirely.

For the same reason, avoid records with vocal choruses or interludes. The intrusion of voice and words shoves the music out of its place in the background into the foreground of audience-attention. As a soloist, Bing Crosby or Judy Garland may be tops—but used to accompany pictures their waxed voices will steal the spotlight from the best picture ever made. Moreover, even though the tune itself may be all right, the words can sometimes conflict embarrassingly with what's happening on the screen.

Since the accompaniment must be unobtrusive, keep your accompanying records all of the same general type of instrumentation. That is, don't slip an organ record into an otherwise completely orchestral score, or a swing band into a succession of symphonic discs. And the same rule usually goes double as regards instrumental solos.

This doesn't by any means imply you'll need a large selection of recordings to draw upon for scoring your pictures. An expansive record-library may give you more variety in creating movie scores, but it's by no means necessary. During the last four years, as a member of the Sound Committee of the Los Angeles 8mm. Club, I have scored several hundred films of almost every description, from scenario films and documentaries to vacation travel-reels and home movies: and practically all of it has been done with scarcely more than a dozen records. It is safe to say, then, that a library of two or three dozen well-chosen records should enable one to provide an adequate score for almost any kind of a picture.

Here are the titles and numbers of the ones I have used most frequently. First, and perhaps the most generally useful, is a two-disc set of the ballet music from Thomas' opera "Hamlet," played by the Grand Orchestre Odeon on Decca records No. 25,200 and 25,201. These two 12-inch discs are of the pleasing, "general" sort of music which will form a nice background for almost any sort of picture. Another set very frequently used is Serge Prokofieff's "Classical Symphony," played by Serge Koussevitzky and the Boston Symphony Orchestra on Victor records No. 7196 and 7197. Another of this same composer's works which is useful for scoring purposes is his "Lieutenant Kije" suite, which, played by the same orchestra, is available as Victor Album M-459. This, incidentally, is genuine "movie music," for it is from a score this Russian composer wrote a few years ago for a Soviet film comedy of the same name.

Another album set which contains selections which will suit most average vacation films is Victor's Album C-17, Glazounow's "Scenes de Ballet." Another set of which I have made much use is "Ballet Russe," by Luigini, which so far as I have been able to determine is available only in a British recording, H.M.V. records C-1948 and C-1949, played by John Barbirolli and the Royal Opera Orchestra, Covent Garden. This and some other foreign recordings may, however, still be available through The Gramaphone Shop, 18 East 48th Street, New York, a firm which for many years has specialized in imported recordings.

Undoubtedly the most useful composer of movie music is the English composer Albert W. Ketelbey, best known in this country as the man who composed "In a Chinese Temple Garden." This, and such of his other compositions as "In a Persian Market" and "In a Monastery Garden" are available easily in this country on both Victor and Columbia recordings; but the most useful of his music has not come over here except in the form of imported records. However, as he is the Musical Director of the British branch of the Columbia Recording Company, he has made many other records which, while difficult to obtain during the present wartime conditions, I can heartily recommend to anyone who takes his scoring seriously. They have been the mainstay of many of my own scores. Among these may be named his "Cockney Suite," consisting of "A State Procession (Buckingham Palace)"; "The Cockney Lover" on *British* Columbia No. 9860; "At the Palais de Dance (Anywhere)" and "Elegy (Thoughts on Passing the Cenotaph)" on disc No. 9861; and "Bank Holiday ('appy 'ampstead)" on No. 9862.

Also strongly to be recommended is his "Three Fanciful Etchings" suite—"A Passing Stormcloud on a Summer Day;" "The Ploughman Homeward Plods His

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"Highlight" Exposure-metering With ARTIFICIAL LIGHTING

By P. C. SMETHURST

THE possibility of measuring lighting contrast and linking it up with both image quality and camera exposure is exceedingly useful in artificial light. Here, there is no sky to lighten up the shadows, and since most reversal films reproduce a scene rather more contrastily than we seem them visually, it becomes important to be able to put sufficient light into the shadows for them to have the required tone values on the screen.

Again, the highest reading on the meter as the card is placed in the subject position and slowly turned round to face all the lamps in turn is used for camera exposure, and we may link this up with the shadow light-value on the meter, and find out how much exposure difference there is between the floodlight of the shadows and the accent light which reproduces the sun. A thorough speed test on a chosen film in artificial light will make it possible to draw up a table of the type shown below, in which the relation between the meter-reading on floodlight, accent or key light, and backlight (all taken from the position of the main subject, of course) can be set down against the effects produced on the screen. After this table has been drawn up, it is in the future possible to duplicate any kind of shot whatever so long as the factors relating to it have been preserved.

Accent-light is measured as maximum meter-reading with artificial high-light on the lamps on the camera side of the subject. Shadow-light is simplest measured at right angles to the reading position for accent-light. Backlight is maximum meter reading on the lamps on the far side of the subject from the camera.

The foregoing notes have shown that there is nothing particularly difficult in the method outlined to obtain a standard image quality, but it is important that unless processing is consistent it is out of the question to expect that the images will all appear identical in screen quality. For this reason, it is essential to request that the speed test and all subsequent films are given uncompensated time-and-temperature processing, so that no attempt is made by the laboratory to correct special-effects which may seem to them to have been over or under-exposed. Quite apart from this, the exposure standard chosen by one man will be quite different from that of another, if the two are not using the same power of projector and the same size of screen, and it would be foolish to get the processing people to compensate both their films to give one standard of image quality.

Color films, in any case, cannot be compensated during processing for exposure errors, so that in this case it is out of the question to save the image in the laboratory, and unless the exposure has been correct in the first place the results are not perfect. In color films, as with an automatic telephone exchange, any wrong numbers are the fault of the man who does the dialing.

Some small practical points may be mentioned here. If the film used is not backed, there is quite a chance that distant scenes may appear to be overexposed as compared with the foreground, but this is due to light spreading about in the film emulsion, and not to errors in the theory of the present exposure method. With reasonable care, stocks without backing can be used, but if there is any trace of shine on the pressure-pad behind the film gate the light passing through the film will be reflected back into the emulsion and the definition and tone values of the scene are bound to suffer.

It is always important when taking a reading that the light is not prevented from reaching the artificial high-light either by the body or the hands. This is usually simple in daylight, but not always quite so simple in artificial light.

It is possible to use a reflecting surface of neutral grey in place of an artificial high-light, but since few of the greys obtainable are really neutral in tint, errors due to differential color-reflection are not uncommon, and since in any case a speed test must be made there is little advantage in using the grey. A checker-board of black and white squares could also be used, but it cannot usually be cleaned without altering the exposure standard read from it.

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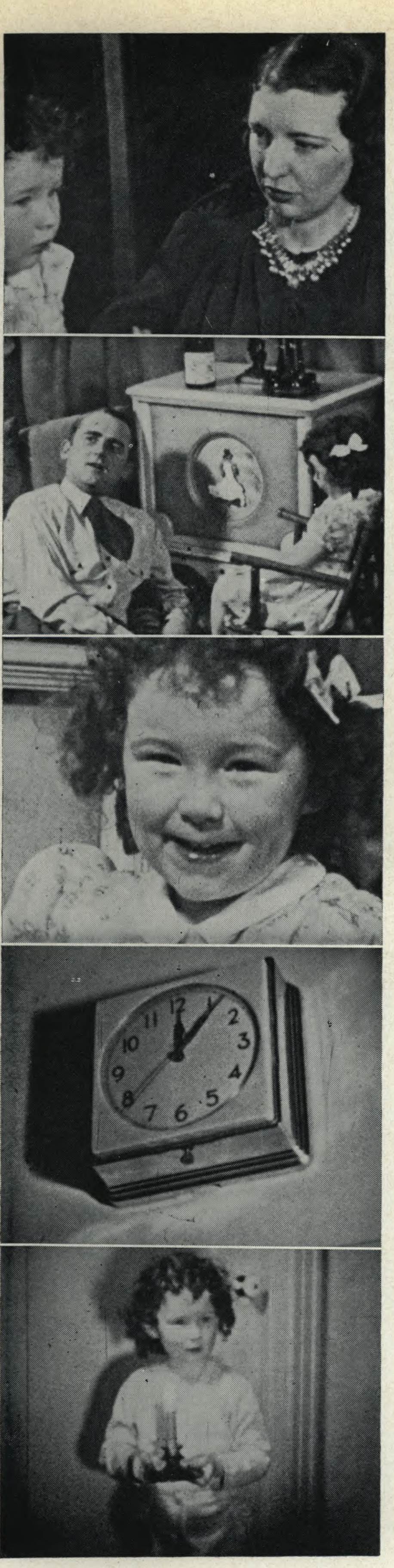
Meter reading above or below standard exposure for matched face tones.	Floodlight (giving the appearance of the shadows of the scene)	Accent light (showing the appearance of the lightest face tones)	Backlight (showing the appearance of the halo around a head)
— 2½ stops	Dark shadows, no details.		
— 2 stops	Full dark shadows, some detail.		
— 1½ stops	Medium dark shadows.	Night effects.	
— 1 stop	Lightish shadows.	Accent—Light for low-key image.	Faint.
— ½ stop	Light shadows for high-key work.	Medium low-key accent-light.	Noticeable.
0 (*i.e.* standard camera exposure)	Very light shadows for high-key work.	Standard image quality.	Pleasant.
+ 1 stop		High-key accent-light.	Strong.
+ 1½ stops		Very high-key accent-light.	Brilliant.
+ 2 stops		Face tones burnt right out.	Halo burnt out.

A HOME-MOVIE MYSTERY
FOR FATHER AND DAUGHTER

By

MILTON R. ARMSTRONG

Co-Founder, L. A. 8mm. Club



Frame enlargements from Armstrong's film. Above, from top down, Scene 2; Scene 3; Scene 4; Scene 11; Scene 10. At right, from top, Scene 13; Scene 14; Scene 20; Scene 21; Scene 24.

EDITOR'S NOTE: This production-tested scenario is adapted from one with which author Milton R. Armstrong took a prize in a recent contest held by the Los Angeles 8mm. Club. He filmed it in Kodachrome, making a 50-foot 8mm. picture which gave him an opportunity for a number of interesting effect-lightings in color. The moonlight-effects called for can be obtained by placing a blue gelatin over the regular Photoflood light used in lighting the interiors. The color-lighting change required in Scene 11 can be obtained very easily by starting the scene with the blue gelatin over the lamp, and then removing it. If you have a spotlight you can get some very interesting effect-lightings, too, by lighting the room itself with the blue-filtered light, and using the spotlight on the little girl, to simulate the warmer light from her candle.

MAIN TITLE:

THE GREAT SEARCH FOR YEHUDI

Scene 1. FADE IN. Medium-shot of **Mama,** reading. Her daughter **Carol,** a three- or four-year-old, enters right, leans over arms of chair, and speaks.

TITLE:

"WHERE'S DADDY?"

Scene 2. Close two-shot of **Mama** and **Carol. Mama** speaks.

TITLE:

"LISTENING TO BOB HOPE ON THE RADIO."

Scene 2-a. Same as Scene 2. **Carol** nods and exits, right.

Scene 3. Medium long-shot in **Daddy's** den. **Daddy** is sitting on the floor by his radio. From time to time he laughs, enjoying the program. Enter **Carol** from left. She seats herself in her chair by the radio, and listens too.

Scene 4. Close-up of **Carol.** She speaks inquiringly.

TITLE:

"WHO'S YEHUDI?"

Scene 4-a. Same as Scene 4. **Carol** finishes speaking.

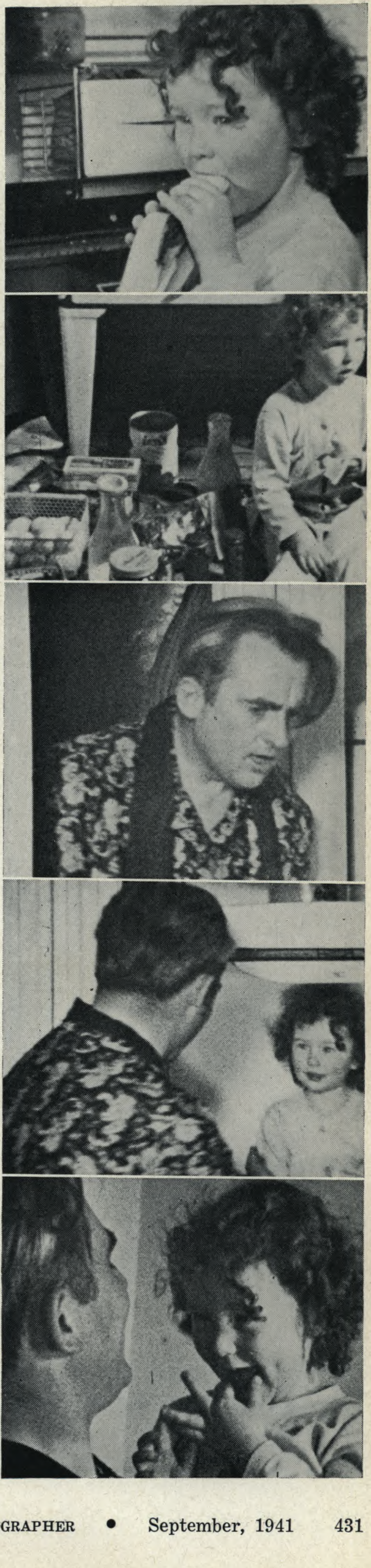
Scene 5. Close-up of **Daddy,** with back of **Carol's** head in left foreground. He slowly registers awareness of the question, turns his head to **Carol,** and speaks.

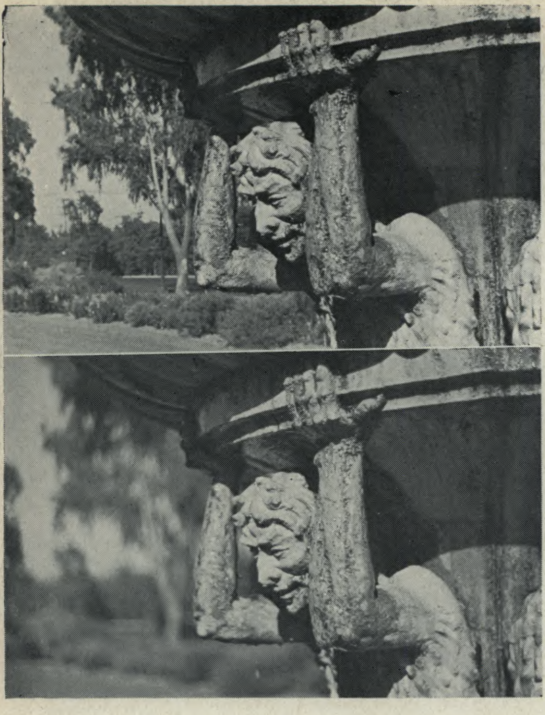
TITLE:

"YEHUDI DOUSES THE LIGHT IN THE ICE-BOX."

Scene 5-a. Close-up of **Daddy** as he finishes speaking.

(Continued on Page 447)





Depth of field increases as lens is stopped down. Above, f:12.5; below f:2.

Get Acquainted With Your Lens

By CLAUDE CADARETTE

Founder, L. A. 8mm. Club

THE lens of a camera is its eye. In the same manner that your eyes form an image on the retina of the eye-ball, the lens has the function of rendering an image on the film surface which is true in every respect to the original subject that is being photographed. Lenses are made in various combinations, starting from the single-element lens, such as an ordinary reading glass, to very complex combinations that are developed for extreme sharpness, all corrections, and highest efficiency in light transmission.

The single-element lens will form an image, but it does not have the ability to correct certain defects that occur. As we view the image formed by a simple lens, we notice that the image appears fairly good, but on closer examination we find that the sharpness is not all that is to be desired, and the edges of the image are distorted. These defects would be very obvious when enlarged on a screen by projection. As a result, the simple lens fails to render a true image of the subject and cannot be used in photography where absolute correction is needed. Therefore, we must use another type of lens that will overcome these defects by giving us a picture of uniform sharpness and a truthful reproduction of our subject.

In speaking of lenses, let us find out what happens to a ray of white light as it passes through glass. Newton discovered that a white ray of sunlight is broken up into many different colored rays of light as it passes through a prism. This separation of rays is known as a spectrum. He noted that the blue rays of light which are at one end of the spectrum did not bend as much as the red rays which form the opposite end of the spectrum. The green and yellow rays were bent more than the blue but less than the red, and fell in their respective positions in the center.

A simple lens is in fact a glorified prism or really two prisms placed base to base. The lens, however, concentrates all of these rays to a point that forms an image. If the blue rays don't bend at the same degree that the yellow or red rays are bent, naturally they will not all meet at a given point and as a consequence, the image loses some of its sharpness and the image appears fuzzy or out of focus. This defect is known as chromatic aberration.

It was later discovered that certain types of glass had different powers of converging rays and that a combination of lenses made from flint and crown glass would make each colored ray of light converge at the same point, correcting the fuzzy effect caused by a simple lens.

This correction, although very advantageous was not sufficient to give an accurate reproduction of a subject and more research was done to improve lenses to correct for distortion and add greater speed in light transmission. In motion picture photography, it is necessary to have lenses having all corrective fundaments as the image must be true when subjected to extreme magnifications on the screen. Speed is essential in motion picture camera lenses due to the fact that the shutter speed is constant and we are unable to make long time exposures under poor light conditions. Science has given us the fast lenses but a means of controlling the amount of light entering the lens was necessary so that we could have a consistent exposure on the film.

Just as the iris of our eye opens in a darkened room to admit as much light as possible, or closes to a pin point in bright light, it was necessary to construct a flexible aperture in the lens assembly to give this same control to the camera eye. This light-valve in a lens is known as a diaphragm. The size of the openings of the diaphragm are calibrated so that each stop on the scale admits twice as much light as the previous stop.

When a lens is focused on an object beyond one hundred feet from the camera, the distance from the diaphragm to the film surface or image formed, is known as the focal length of the lens.

The focal length of a lens determines the area width and height that can be photographed. This angle of acceptance in a lens varies with the focal length, the angle decreasing as the focal length becomes greater.

As an example, if we used a lens having a focal length of 1 inch, and can cover an area that is 30 feet wide, by using a lens with a focal length of 3 inches, we reduce the angle of acceptance to such a degree that the area covered is only 10 feet wide from the same camera position. The film records only ⅓ of the original area and when projected on a screen, we get a telescopic result. For that reason, telephoto lenses are of a longer focal length but do not cover as much of the original area as the 1-inch lenses. The 3-inch lens will produce as large an image on the screen when photographed 18 feet from the subject as the 1-inch lens will produce at 6 feet from the subject. One can readily see the advantage this gives when filming difficult subjects. If you desire a closeup of some subject but are unable to approach it, the desired results can be had by the use of a telephoto lens.

The actual size of the diaphragm aperture can vary, but the value is always in direct relation to the focal length of the lens. In other words, the opening of f:8 on a telephoto lens is physically larger than the f:8 opening on a ½-inch lens, but each opening allows the same amount of light to reach the film. To compute the value of an opening, you divide the focal length of the lens by the diameter of the diaphragm opening and the result is its f-value.

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So You Want To Make 16mm Commercial Movies?

By One Who Tried It

THE author of this piece must remain anonymous for reasons that will become clearer and clearer as the story unfolds. Determined to tell all, he nevertheless doesn't want what is left of his life intruded on by well-meaning but argumentative visitors (and their wives) bent on convincing him that they must be classed as glorious exceptions to the unflattering facts he is about to set down. But at the same time, peeping surreptitiously over the Editor's shoulder, he has caught glimpses of a trend among certain classes of cinemateurs upon which a job of nipping in the bud ought to be done if the aforementioned cinefilmers are to remain happy and well-fed.

To put it bluntly, it has come to my attention that there are quite a number of gentlemen living ordered, conventional lives, with jobs in respectable businesses, with wives perhaps, and in some instances even a kiddie or two, who are planning to give up their all for the privilege of producing commercial 16mm. motion pictures. It is this bit of news, gone unnoticed by most in the stress of more extensively-publicized international events, which has drawn me from hibernation. It touched me to the quick. (I'm not sure what the quick is, but it must have been something serious to drag me from my comfortable hibernation waiting for 16mm. commercial-film customers.)

If I were a psychoanalyst, girt about with whiskers and imposing degrees, I could probably find an impressive Latin name for the peculiar psychosis (or is it a fixation?) that impels these filmers to toss away a tangible something for a very problematical nothing. But even if I can't name the disease, I can analyze it, for I've had it—almost fatally—myself. And since it *is* a disease, we might as well preserve the pseudo-medical atmosphere and proceed to discuss the matter in terms of the case-history of a mythical individual who, with true medical reticence, we might as well call "the patient."

The patient has a good job. This is deduction in the best Sherlock Holmes tradition so I'm not divulging any private biz. He must have a good job because he has had enough money left over after paying the rent and the groceries to buy a movie camera, with all its expensive etceteras, cutting equipment, a projector and a screen. And money enough after that to keep the omnivorous thing supplied with film. And that calls for more than hay. Then the patient has a car. Oh, yes he has. Even the worst patient knows that as far as he expects to go with his camera, he'll go farther in a car; for the present anyway. And so, I submit, our patient, who can afford all that is listed above, has a good job and is well off, even if he doesn't realize it.

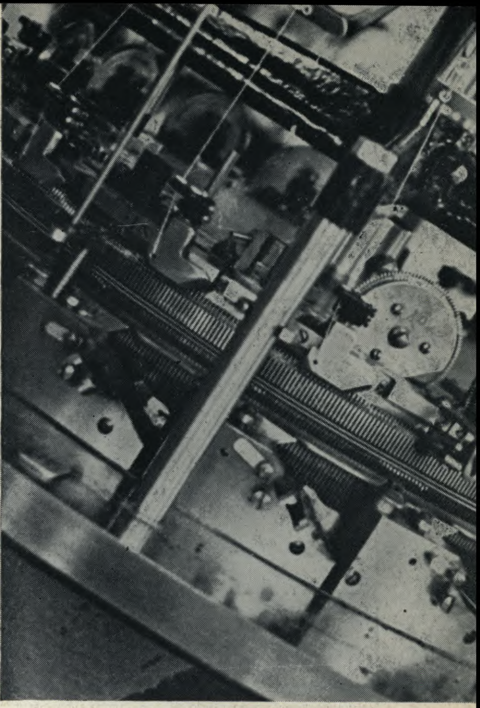
Our patient, on his days off, sets up his camera at every likely opportunity, presses the button and in due course and after the proper delays, gets back a photographic record of the happy occasion. Friends who were present at the shooting are invited over and all respond enthusiastically. The women in the party may be individually, though privately, convinced that the cameraman didn't do a particularly good job for them personally, though sure he flattered her sisters; but the women, as a whole, are even louder than the men in their praise of the man whose patience, skill, art and sacrifice put the pictures on the screen. Not the inventor, you dope, the guy with the camera.

There is one bit where the camera was turned upside-down and the characters leap feet-first out of the water onto a springboard. The audience, seated in the cameraman's own darkened living-room, howl in unrestrained laughter.

There is another bit where the patient's son, age 2, advances quite unexpectedly into the picture as his father is shooting the son and heir of a visiting relative (not present and particularly disliked by those who are). The son of the visiting relative, age 19 months, is biffed over the head with a stuffed elephant by the son of mine host who got the whole thing with a 2" lens from the kitchen window unknown to the protagonists.

When this bit is shown it is hailed as a masterpiece. Such artistry, such human interest! How clever! How too, too sweet!

Then, as a piece de resistance, there flash on the screen scenes from a recent visit to the Grand Canyon. On that trip nothing less than Kodachrome would do. It would be a crime with all that color not to use Kodachrome. Sure it is more expensive. But what are a few dollars? After all, we don't take trips like that every week.


Portrait of a message; otherwise, a glamour-shot of a knitting machine for a commercial movie.

So all right. Wifey agreed, and all unbeknown to anyone (till later) bought herself a particularly cute, and colorful, outfit to wear at that colorful spot. After all what's a few dollars? You don't make a trip like that every week.

Well, when those scenes flashed on the screen they really showed that it had been worth the extra for the Kodachrome. And our patient had made good use of the knowledge he had acquired, one way and another, on the best way to expose it. The colors were beautiful. And the camerawork was devoid of some of those more startling bits that had distinguished our patient's earlier work. There were no fast, dizzying pans, and he had carefully deleted the footage of what looked like a moving bacterial mass but actually was the patient's thumb in front of the lens.

Well, as I was saying, when these particular scenes were shown, when the reds and the yellows and the blues and the greens of that masterpiece of Mother Nature's were shown in all their glory, and none of their discomfort, right in our patient's living-room, there was a chorus of Ah's that would have delighted a tonsil expert.

A magnificent view across to the opposite side of the canyon was interrupted by another, equally beautiful, of a tilt down to show the donkeys with their human burdens journeying to the floor below. Then there was a view looking along the entire length of the cavity showing a glorious sky and framed in the immediate foreground by a gnarled fir tree. That was a masterly touch, that fir tree! Our patient remembered someone telling him that foreground would help his landscape shots and so, at the time of shooting, he had moved over enough to get it in his finder.

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AMONG THE MOVIE CLUBS

CALLING CLUB SECRETARIES!

This department of THE AMERICAN CINEMATOGRAPHER is *your* department. We feel that there is a great deal to be gained all around by making these reports of club activities available to other clubs and to independent cinefilmers all over the country. To that end, we ask all you club secretaries to consider yourselves special reporters for THE AMERICAN CINEMATOGRAPHER with the assignment to "cover" the activities and meetings of your club.

The Editor.

Colorado Springs Studies "Mt. Zao"

The recently-formed Colorado Springs (Col.) Cinema Club's August meeting was highlighted by the showing of two notable prize-winning films loaned by THE AMERICAN CINEMATOGRAPHER. These were "Mt. Zao," the sensational skiing film made by Khoji Tsukamoto, of Japan, and "Prize Winner," made by J. Kinney Moore, of Brentwood, California. As a matter of fact, "Mt. Zao" was screened twice, the first time so that everyone could thoroughly enjoy the picture, and then the second time to study the methods of photography used. In this way the club members could give more attention to the study of the film and the camera-technique that made it one of the world's outstanding amateur film achievements. This method of repeating a notable picture for closer study can be recommended to other clubs.

August evenings are rather warm, even in Colorado, but "Mt. Zao," with all its snow-scenes gave the members at least a psychological aid in keeping cool. And the club thoroughly enjoyed Mr. Moore's homespun comedy, "Prize Winner." Seeing these two films gave the club an incentive to try to make better and more interesting pictures, and perhaps in the future THE AMERICAN CINEMATOGRAPHER'S "Home Movie Previews" department will see the results.

EARL COCHRAN, President.

Varied Show For L. A. Cinema

The August meeting of the Los Angeles Cinema Club, under the chairmanship of past-president Dr. LeRoy Bailey, provided the members an unusually varied screen programme of both 16mm. and 8mm. films. First shown was a Kodachrome film made by member Fred Doolittle, an engineer with the Southern California Edison Company, illustrating the special equipment and methods used by his company's linemen in repairing extreme high-voltage power-lines without shutting off the current which in some shots was said to be as much as 225,000 Volts.

Through the courtesy of William Stull, A.S.C., Editor of THE AMERICAN CINEMATOGRAPHER, the Club was privileged to screen three notable films sent in to him from various parts of the country for review. First of these was "The Green Album," an all-interior 16mm. Kodachrome costume picture filmed by Miss Agnes Marx, winner of the Harmon Trophy in the Annual Contest of the St. Paul Amateur Movie Makers. Next was a pair of unusual 8mm. shorts, "Democracy," and "Mr. Hitler Never Loses," filmed by Joseph F. Hollywood of the Metropolitan Movie Club of New York. These two 50-footers, which made use of superimposed titles, animation, and miniatures were declared to be among the most unique pictures ever screened before the club.

Final feature of the evening was a showing of a commercially-made Kodachrome sound-film, "Unsung Heroes," made for the Westinghouse Co. by the Calvin Co., of Kansas City. Before showing this, Mr. Stull declared it was the finest example of all-16mm. production he had yet seen, and the picture more than lived up to his words. The optical wipes, transitions and split-screen effects especially proved a revelation to the members present.

JACK SHANDLER, Secretary.

Parkville Screens "Beyond Manila"

The August meeting of the Parkville (Md.) Cinema Club was devoted to study and discussion of making travel movies. The screen feature of the evening was the showing of THE AMERICAN CINEMATOGRAPHER'S prize-winning Kodachrome travel-film, "Beyond Manila," an unusual 3-reel picture filmed in the Philippines by W. G. Hahn of Baguio, P. I. Both in subject-matter and camera-treatment the film proved the high-spot of an interesting evening.

India Resumes Activity

At the Third Annual Meeting of the Amateur Cine Society of India, held in 1940, the members decided that because of wartime condition's the Society's activities should remain in a state of "suspended animation" for one year. At the Fourth Annual General Meeting of the Society, held this spring in Bombay, the Emergency Committee of this normally vigorous Club recommended a resumption of Club activities.

The first regular monthly meeting after the resumption of Club activities was held in Bombay and featured talks by Messrs. G. Quiribet and C. W. Dack of Kodak, Ltd., and the screening of several pictures.

Long Beach to Sponsor Documentary Show

The August 6th meeting of the Long Beach Cinema Club was "Gadget Night," and proved so successful that the members asked that at least one gadget be shown or demonstrated at all future meetings. The screen fare included a wedding picture, "The Old, Old Story," filmed in Kodachrome by Pat and Nora Rafferty and presented with a musical accompaniment, and a vacation picture filmed in the Mammoth Lake country by Forrest Kellogg.

Robin Hadley gave a report on the latest Directors' Meeting concerning arrangements being made by the Club to sponsor a showing in a professional theatre of a programme of outstanding documentary films. This showing will be at Long Beach's Egyptian Theatre on Sept. 23rd, and the programme will include the Government Documentaries, "The River," "The Plough That Broke the Plain," "The Harvest of the Land," "The Power and the Land," and two unusual MGM shorts, "Quicker'n'a'-Wink," filmed in super-slow-motion photography (over 2,000 frames per second) and "Third Dimensional Murder."

Gadgets necessary for back-projection were demonstrated by President Mildred Caldwell, and three very novel home titling outfits were shown by Harold Hillinger, Ted Phillips and Harold O'Neal. The remainder of the evening was spent in examining gadgets brought by the rest of the members, and refreshments were served.

Highlighting the August 20th meeting was a Kodachrome film, "Tins of Tuna," made by Mildred Greene and showing all the processes in the Harbor's biggest cannery. C. Don Hughes, of Amarillo, Texas, exhibited his Kodachrome film "Cherry Blossom Time in Washington D. C." "Holidays in Cuba," a Kodachrome film with very clever titles, was shown by Dr. Harold Brooks, and "Through the Window Pane," a film loaned from Hollywood, was also screened.

RAYMOND FOSHOLDT,
Secretary-Treasurer.

L. A. 8's Have "New Deal Nite"

The August meeting of the Los Angeles 8mm. Club was held under the chairmanship of Treasurer and staunch Democrat Bill Millar, and programmed as "New Deal Night." On taking over the chair, new-dealer Millar instructed the Secretary to read Millar's specially-prepared version of the minutes of the previous meeting, which was riotously ordered revised by unanimous vote of all members mentioned. A letter from member Lewis Reed, now a Naval flyer

(Continued on Page 449)

16 MM

Home Movie Previews

8 MM

THE GREEN ALBUM

Costume "home movie," 300 feet 16mm. Kodachrome (sound speed.)

Filmed by **Miss Agnes Marx.**

The maker of this film sent it in with the explanation that it was the result of her first experiments with filming Kodachrome under artificial light and with personally-made titles. If so, it has all the earmarks of a graduate student's thesis, for it is one of the best examples of Kodachrome lighting and of good titlemaking we've seen lately. Every inch of the film is technically excellent. The interiors are unusual among amateur-made Kodachrome interiors in that the whole of every scene seems adequately lighted, with no falling off in exposure values in distant corners, or on dark furniture or woodwork. The generally light-colored walls of the room used for most of the scenes no doubt helped, but careful attention to lamp-placement and illumination-values was chiefly responsible for this excellent technique. There are two effect-lighted scenes with silhouetted areas used to frame the main action of the scene—one when "Dad" brings the trunk from the store-room, the other in the scene showing the amazing abundance of petticoats worn forty years ago. These are extremely effective pictorially, and well done technically. In some of the other scenes a trick of professional lighting was used to good advantage: concealing lights behind people or furniture to illuminate the back-wall and make the foreground action stand out more clearly. This deserves hearty commendation.

The titling is, as we've mentioned, uncommonly good. The opening title makes very effective use of wooden block letters against a suitable background. The other titles employ white letters, apparently of the metallic stick-on variety, against a solid green background. This makes an excellent color combination; and one which, unlike the blue and white combination so commonly used, should stand up quite well in the rather unlikely event today's Kodachrome should fade as did the earlier emulsions. The lighting was even, and the lamps placed effectively to give relief to the three-dimensional letters.

From a picture standpoint, however, some suggestions could be made. The film is technically excellent, and has a reasonably interesting subject-idea—that of a couple of young women exploring Grandmother's trunk from the attic, and trying on the "gay 90's" clothes it contains. But to the general audience, there is a certain tendency toward dragginess. This could be greatly improved by the use of close-ups, especially immediately preceding and following the many spoken titles. A good example of this is in the scene where it is suggested the trunk is in the store-room, "—so let's go see." With the title cut into a long-shot, either the young woman or the little girl could have spoken it. Therefore we would suggest making a close-up of the young woman speaking, cutting in the title, and returning to a close-up of the woman finishing speaking. This could be followed by a medium close-up of the little girl, expressing pleased excitement, and starting to stand up quickly before the scene is cut. In the middle of the movement cut to the long-shot, just at the point in the latter where the little girl is seen rising.

The film could use a number of other close-ups—as, for instance, one of the women calling "Dad" to help with the trunk, another of him hearing her call, and so on. Close-ups of the woman and her friend as they admire each other's appearance in the forty-year-old styles would also be helpful. We'd be inclined to suggest, too, deferring the revelation that the woman is trying on the clothes until after her friend arrives. This could easily be done by showing her only in close-ups as she makes the phone call—close-up of her hand dialing the number, close-up of just her face as she talks. Then, after the phone talk is over, cut or better fade to the friend arriving —taken from outside the door—and cut to a shot toward the door, as her friend opens it clad in "gay 90's" attire, after which it would be logical to cut to a surprised close-up of the visitor, and so on. And as the two young women try on the clothes, it would be effective to intercut close-ups of the little girl as she watches, registering surprise, amusement, etc.

We would also suggest that it was sometimes difficult to be sure whether some of the titles were intended as spoken or descriptive titles. Therefore it would be well to do as was customary in silent pictures, and set off all spoken titles by quotation-marks.

DEMOCRACY

Documentary, 50 feet 8mm. black-and-white.

Filmed by **Joseph F. Hollywood.**

This film, a companion-piece to "Mr. Hitler Never Loses," by the same filmer and reviewed in last month's issue, is another unusually clever example of turning the home-movie camera to the task of setting forth on film one's political ideas. This film is what might be called "a Republican's-eye view" of last fall's election; as such, its sentiment is somewhat dated and not wholly in keeping with the events and sentiments of 1941. But its technique is still powerful; it makes one wonder why more amateurs don't try using their cameras as a means of expressing their views on public questions.

Technically, the picture is a clever combination of animation, superimposed title technique, and live-action close-ups. It is excellently done in in every respect. The defeated Presidential candidate is shown in semi-silhouetted long-shots, with pertinent quotations from his speeches superimposed in title-form. As in many a Hollywood (California!) movie, unquestionably a "double" enacted this part, a person with just enough physical similarity to suggest the desired character, and with his real identity concealed by the semi-silhouetting lighting. The effect is extremely good. The winning candidate is indicated by a simple cut-out of a pair of spectacles and a long cigarette-holder superimposed on titles quoting this individual's speeches. The result, again, is to perfectly suggest the individual intended. The contrast between the two methods of presentation is also a clever way of indicating the filmer's estimate of the two actual personalities.

The live-action scenes, shown usually in close-ups, indicating audience reaction to the two speakers, the outcome of the voting, etc., are also capably handled. The cutting is, as was the case with "Mr. Hitler Never Loses," more than ordinarily capable. The film builds to a definite climax, the tempo, as established by both action and cutting, building swiftly and effectively. While perhaps a less striking example of film-craftsmanship than "Mr. Hitler Never Loses," the film is none the less a technically fine and dramatically compelling piece of work, which presents its ideas more favorably than many a professional epic.

All told, both of Mr. Hollywood's productions make one wonder why, since the silent film is such a forceful means of expressing even abstract ideas, more users of 16mm. and 8mm. cameras don't try to use their cameras that way. And seeing what this filmer has done in this direction while employing virtually no physical resources which couldn't be available to any amateur, we can commend it to other movie-makers. Almost all that is really necessary is a basic idea. visualized. But ideas, we'll admit, aren't as easy to get as Mr. Hollywood's films make them seem!

HERE'S HOW

For many years one of the most important services THE AMERICAN CINEMATOGRAPHER has performed for its readers has been the answering of technical questions about all phases of amateur and professional movie-making. These questions are usually answered by individual letters, to permit going into the necessary detail. However, in response to many requests, we also publish, in abridged form, some of these questions and their answers which we believe may be of interest to other readers. THE EDITOR.

Color Titles

Working for the New York "Herald-Tribune" as a printer, I have facilities for almost any style of type I care to use, and I print my own titles for my 16mm. movies. I'm fond of titling, and I take almost more pride in printing and shooting titles with different types and backgrounds than I do in making the actual movie. Titling my 4,800-foot Kodachrome picture of the New York World's Fair I used light-yellow lettering (42-point Memphis bold type) on good blue paper. I printed the actual lettering in white ink, and then went over it carefully with light-yellow Speedball lettering ink on a brush in order to get a solid color against the blue. For I found that when I print any light colors (sometimes even dark colors) on colored paper, the ink somehow does not give a very definite color-contrast; the color of the paper seemed to come right through the ink. On this particular job, I managed all right with the brush-over method mentioned, but you can't always use the same family of type for all films, and other type-faces can't be hand-retouched that way on account of having very thin serifs, etc.

I have tried to print with white ink on black paper of both rough and glossy finish, but the whites weren't clear. This naturally prevented me from doing double-exposure work. Even printing with opaque ink on acetate did not give a really satisfactory result, as the metal type seemed to give a porous impression and slightly smeared the edges of the letters.

Looking at the titles in Technicolor movies, I notice that the whites, pastel colors and solid colors, regardless of the type-face used, seem to stand out very distinctively. On many occasions a very pleasing shading effect is combined with the wordings of credit-titles, on either moving or still colored backgrounds.

How is this done? Can you tell me, and tell me what type of ink, printing, etc., is used?

George Tasso

Very few, if any, professional titles—in major feature pictures, at least—are printed. Instead they are hand-lettered, like extra-fine showcards. This of course gives much the same opportunities as you had when you went over your lettering with a brush. And since most professional titles are lettered on really large cards—from 14x20 up to three feet or more wide—the title-letterer's job is much easier. The shading to which you refer is also drawn in by hand.

In our personal title-making we've been lucky enough to have a friend connected with a print-shop which specializes in printing fine Christmas cards for a large greeting-card firm. In this shop an unusually wide variety of colored inks and colored papers are naturally available. While we're not expert printers, we observed they seemed to get the best results using color-combinations that offered a strong contrast, and on matte-surfaced papers, with perhaps a somewhat heavier application of ink than would be the case for ordinary black-and-white printing.

In making titles with white letters on a black background for black-and-white pictures or double-exposure titles in either black-and-white or color, we had much the same experience you did: the ordinary white ink didn't show up any too well. But we were able to get around this by using a dull matte-surfaced black paper and silver ink. This gives a highly reflective lettering against an absolutely black background. Even in color, these letters photograph white and stand out well. We've tried two types of ink: one prints directly in a silver color, and is fair; the other prints a sort of grayish and is dusted with silver powder while the ink is still tacky. When the ink has dried, the surplus powder may be gently blown off. This proved more satisfactory. When you come to shoot titles made this way, we'd suggest that you keep a small rubber-bulb syringe handy to blow away any little flecks of loosened silver powder which may settle on the black surface. From our experience, too, we'd warn you against trying to use either a rough-surfaced paper or a glossy-surfaced paper for this. The rough paper doesn't give a very clear impression, and the silver powder scatters over its surface and clings there; it's almost impossible to dislodge. The glossy-surfaced paper reflects your lights unless they are placed very carefully, and seems to pick up every tiniest flake of dust in the air, which naturally stands out extra clearly against the black background. But a smooth matte surfaced black paper is ideal in every respect: it takes the impression well, stays clean, and is so completely nonreflective that it gives good contrast in straight titles, and is completely invisible in double-exposed titles.

Back-lighting Color

I notice all the instructions for shooting Kodachrome say always to have the light behind you. But when I go to the theatre to see a professional Technicolor movie, I notice that repeatedly the exterior scenes are back-lighted. Is it impossible to do this in Kodachrome, too?

Robert Eisenbrey

The instruction-books advise against back-lighting Kodachrome because that is much the safest course: Kodachrome (or any other color-process) has a much narrower exposure-latitude than does black-and-white, so ordinarily in a back-lighting there isn't enough latitude to take care of the difference in illumination on the shadowed face and the strongly highlighted back-lit portions. If the shadow is correctly exposed, the back-lit area will be badly overexposed; if the back-lit area is correctly exposed, the shadowed part will be badly under-exposed. The same thing would probably apply in Technicolor: but the professional cinematographer can equalize his exposure-values by throwing more light into the shadows, by using either reflectors or artificial "booster" lights. "Boosters" are usually impractical for amateur work, but you can use reflectors—and if you do, you'll find you can make back-lit Kodachrome shots as effectively as the professional can use the same lighting in Technicolor.

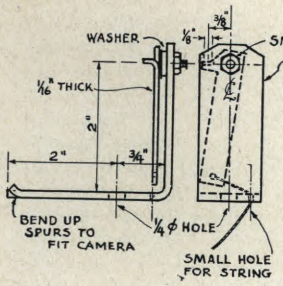
Dissolving Positive Titles

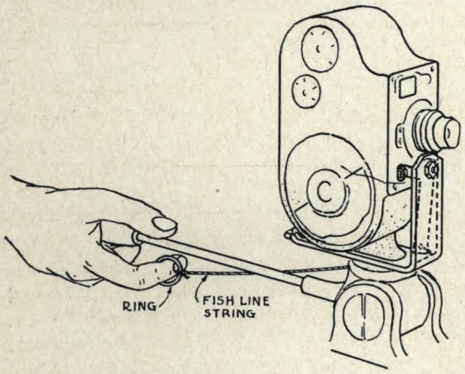
I've been told you could make lap-dissolves on direct-positive titles by simply opening the lens, instead of closing it, when you wanted to fade out on the first title, then rewinding the film and starting the second title with the lens wide open, then making the fade-in by closing the lens down to the desired stop. I tried it and it didn't work. Is it possible to make dissolves on positive titles?

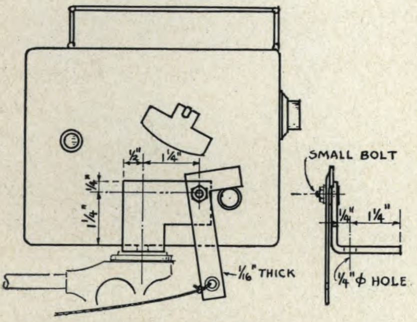
E. V. Chapin

It is really simple: just make your dissolves in the usual way, closing the lens down to make the fade-out part of the dissolve, rewinding and making the other half by opening the lens. In this way, on the first half of the dissolve, your film successively receives less and less exposure, and if it were developed then the dark background would slowly fade from black to the clear white of unexposed film. Rewinding and reversing the process, the same thing happens as you fade in on the second title. With these superimposed, the density of the background remains unchanged, as where the first title fades out, the second, accurately superimposed on it, fades in, and the background always gets the same total of exposure. The lettering, on the other hand, photographing white, will fade normally as the photographically dark background which gives it contrast, fades out and at the same time the background of the second title, superimposed, comes in and naturally occupies much of the spaces previously occupied by lettering.

THE IDEA EXCHANGE







Camera Release

Have you ever needed an extra hand while using your camera on a tripod? Here's a solution which permits one hand to operate both the pan-head and the camera-release, leaving the other free to do whatever is necessary, such as working a fader, or the like. One finger of the hand controlling the pan-handle is slipped into a ring which is tied to a string attached to a lever mechanism which moves the camera-release.

The sketch shows the mechanism as applied to a Bell & Howell Filmo 8 and also to an Eastman Model 20 Cine-Kodak. However, the same principle can be adapted to almost any type of camera.

The parts can be made out of an angle-iron and a corner-brace of the type used to reinforce screen doors, which can be bought for a few cents at any five-and-ten-cent store. The string used should be a piece of fishing-line or other similarly strong, flexible material. The ring at the end should be of a size such that it will slip easily over your finger. The mechanism should operate easily, so as to obtain a "feather-touch" control.

The same gadget can be modified for use as a remote-control arrangement too. Simply tie a small weight, such as a good-sized fishing sinker, to the end of the string. Then balance the weight on a suitable supporting mount on the tripod-head. Tie another bit of string to the weight, and carry the other end of this string into the scene with you. Then all you need to do is twitch the string so the weight is pulled off its support. It then trips the camera-mechanism by pulling the string which operates your release.

PAUL W. CRAMER

THE IDEA EXCHANGE is just what the name implies—the place where 16mm. and 8mm. cinefilmers can swap moviemaking ideas with the other fellow. The little improvised tricks you used to solve one of your cinemaking problems may be just the answer to something that's perplexing a fellow filmer—and one of his ideas may solve a problem for you.

To help out this exchange, THE AMERICAN CINEMATOGRAPHER invites you to send in descriptions of gadgets, tricks, shortcuts and methods you have used in any phase of home movie work—shooting, editing, titling, projecting, processing, and the like. If possible, send along a photograph or sketch to help make your description more clear to the other fellow. For every idea published in THE IDEA EXCHANGE, we'll give you two projection-reels and cans or their equivalent in equipment or cash. Really unusual ideas will reecive higher awards. When sending in your idea, let us know whether you shoot 8mm. or 16mm. to facilitate sending you the right equipment.

Lighting Titles

Unless you use one of the more expensive titlers with built-in lighting units, one of the most troublesome and time-consuming tasks in title-making is getting your lights set up to illuminate the title. The lighting must be flat and uniform, and for consistent results should always be the same intensity—which means the lights should always be in the same position every time.

Here's a simple gadget which can be added to almost any of the popular typewriter-letter titlers, like the Eastman, which will enable you to put your lights on at the same place every time, with no trouble.

Simply get a piece of 1-inch board about three inches long by two or two-and-a-half inches wide. Mount this standing on edge (with the 2½-inch measurement vertical) beside your camera on the base of the titler. You can fasten it permanently to the titler-base by drilling two small holes in the metal of the base, and inserting two wood screws through these holes to hold the wooden block in place.

In use, just snap your clamp-on Photoflood reflector to this block, and swing the light over so it is just above the lens of your camera, and with the reflector shading the titler's supplementary lens. This, with most clamp-on reflectors, will give you a perfectly even illumination all over your title field.

Since the lamp is always in the same position, you don't have to worry about exposure. If your tests have shown you that with the film you use and a No. 1 Photoflood an average title will be correctly exposed at, say, *f*:5.6, from then on whenever you make titles all you have to do is clamp your lamp on the block, set the lens at *f*:5.6—and shoot.

If you're one of the prosperous, well-equipped fellows who owns a "Dinky Inky" or similar small spotlight, you can work the same idea. Extend the wooden block higher, and drill a hole through which you can insert a ¼-inch bolt which will screw into the tripod-socket on the base of the "Dinky's" mounting-bracket. Turning the spot-lamp over on its side you can position it just above the lens. Then focus it down till the spot-beam just slightly more than covers the title-area, and shoot. This side-burning business isn't too good for the "Dinky's" bulb, but for short periods it won't hurt seriously.

ROBERT W. TEOREY

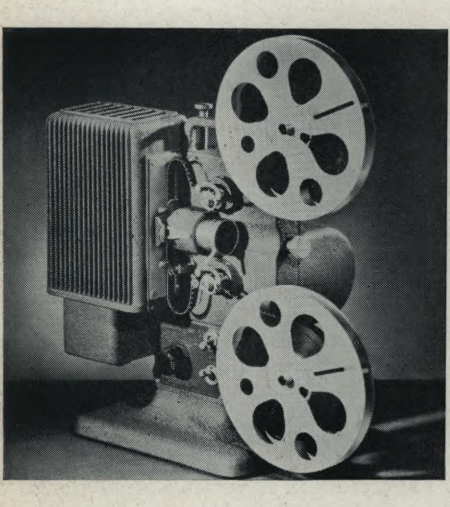
Sunshade For Cameras

Shooting in a back-light, did you ever try to shade the camera's lens with your hat or hand while you made your scene? Then you'll appreciate this sunshade gadget! Go to your favorite auto-supply store and buy one of those sun-visors that is mounted at the end of a metal rod. Take a small sheet of brass and drill a hole in it so that the brass sheet can fit between your camera and tripod-head, with the tripod-screw passing through the hole, and about an inch or so of the brass plate extending beyond the camera. To this projecting end solder a block of brass a little over an inch square. Mount the end of the sunshade's supporting rod in this block: just how, depends on the type of sunshade you buy. Some of them have a nice swivel-mounting on that end, so all you'll have to do is attach this to the brass block. Others may not have this swivel, and your best bet will be to make one by taking a smaller piece of brass, cutting a groove in one side to accept the rod, and drilling a hole through it (at right angles to the groove) through which you can run a bolt to bolt it to the base-block at any desired angle.

This way you can swing the visor out

(Continued on Page 449)

◆◆◆...THE SHOWCASE...◆◆◆



Kodascope 8-33 Projector

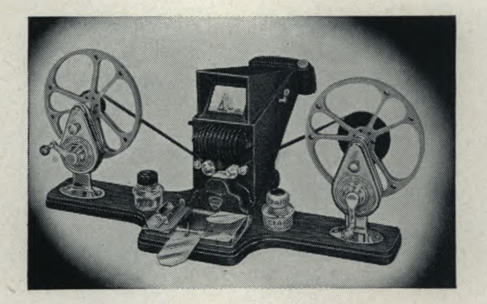
Bringing improved performance, appearance and quality to the moderate-price 8mm. projector field, the new Kodascope 8-33 projector is announced this month by the Eastman Kodak Company as replacing their previous moderate-price models, the 8-50 and 8-20. Of die-cast metal construction, compactly designed and finished in gray wrinkle enamel, the new projector is a belt-driven, 500-Watt unit of 200-foot reel capacity.

The optical system consists of a one-inch *f*:2 Kodak Anastigmat projection lens, highly corrected to give excellent definition at all normal projection-distances, an easily removable condenser lens, and a spherical collection mirror behind the lamp. The projection-lens is fitted with a small arm for convenience in focusing.

The light-source regularly supplied is a 500-Watt line-voltage T-10 biplane-filament lamp. However, either 300-Watt or 400-Watt globes may also be used. Cooling is provided by an efficient ventilating fan mounted directly on the end of the motor-shaft, which blows air directly upon the lamp, exhausting through louvres in the top of the lamphouse.

Centralized control is provided by grouping the motor-switch, speed-control and lamp-switch on a single panel at the right of the projector. Lamp and motor circuits are so arranged that the lamp will not light unless the motor-switch is closed, but may be turned off for rewinding. An automatic safety-shutter drops into place between condenser and film-gate if the speed of the projector becomes too low. The motor operates on A.C. or D.C., 100 to 125 Volts, 25 to 60 cycles.

A positive framing device, located on top of the projector, moves the film with respect to the gate, making it unnecessary to alter the projector's tilt following framing. Both the gate and the pressure-pad are finished in highly-polished chromium plate. A catch holds the film-gate open for easy threading and cleaning. The lamphouse is removable for easy accessibility to lamp and condenser. A convenient carrying-handle is cast as part of the projector-housing, and a screw-type tilting adjustment is located in the base. Take-up and rewind are driven by external spring-belts, and rewinding, as in the previous lower-priced Kodascope eight projectors is done by removing the take-up belt from its pulley and connecting the rewind belt to the upper (supply) spindle's pulley. Reel-arms are designed to accept 200-foot reels. A sturdy, fabric-covered carrying-case for the projector, a spare lamp, and two 200-foot reels is available.



Craig 8mm. Enlarg-O-Editor

Filling an important need, the Craig Enlarg-O-Editor, a combined motion-viewer and frame-enlarger for 8mm. film, is announced this month by the Craig Movie Supply Company, of Los Angeles. The device consists essentially of the well-known Craig 8mm. Projecto-Editor to which has been added a completely new optical system and a built-in camera-back carrying standard No. 127 rollfilm upon which the frame seen in the viewer-screen is projected to make a still-picture enlarged negative which in turn may be used to make either contact prints 1⅝x2½ in. (4x6.5 cm.) or enlargements.

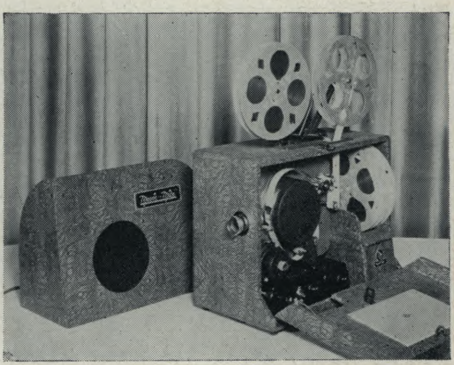
In use, the film is passed through the motion-viewer in the usual manner until the desired frame of the chosen scene is found. Then throwing a small lever stops down the projection-lens to an extremely small aperture assuring maximum definition, and the exposure is made by turning a convenient knob which drops the mirror normally used to reflect the image onto the viewing-screen, and transfers the image instantly to the negative film in the built-in camera at the back of the unit. Releasing the knob returns the mirror to its normal position and stops the exposure.

During the manufacturer's experiments members of The American Cinematographer's staff were privileged to make practical tests with the first Enlarg-O-Editor built. The results were in every way satisfactory, as may be seen by reference to the illustrations appearing on Page 279 of the June, 1941, issue, all of which are frame-enlargements made from 8mm. black-and-white film with the Enlarg-O-Editor and reproduced from 4x5-inch prints. The 8mm. frame-enlargements on Page 283 of the same issue were made from Kodachrome originals with the same device. Our experience has been that Verichrome or Plenachrome rollfilm is the most satisfactory material to use for this purpose, with exposures ranging from 15 to 20 seconds, depending on the density of the frame being enlarged.

The DeLuxe Enlarg-O-Editor, complete with Craig Senior Splicer, Senior Rewinds, Film-cement and base, retails at $59.50.

Bolex Vignetter for All Cameras

For some time there has been a demand for an iris vignetter which closed completely for use in making fades. Bolex-Paillard has just introduced an accessory of this type, designed not only for use with Bolex cameras and the Leitz Hektor Rapid 27mm. *f*:1.4 lens, but adaptable to all other 1-inch lenses on any other type of camera. As a means of making fades and (if the camera has a back-wind) lap-dissolves, this accessory should be a useful addition to any filmer's outfit. Price is $10 for the Leitz lens, and $1.50 extra for adapters for other lenses with screw-in mounts to fit Bolex, Filmo, Victor, Keystone and other 16mm. cameras.



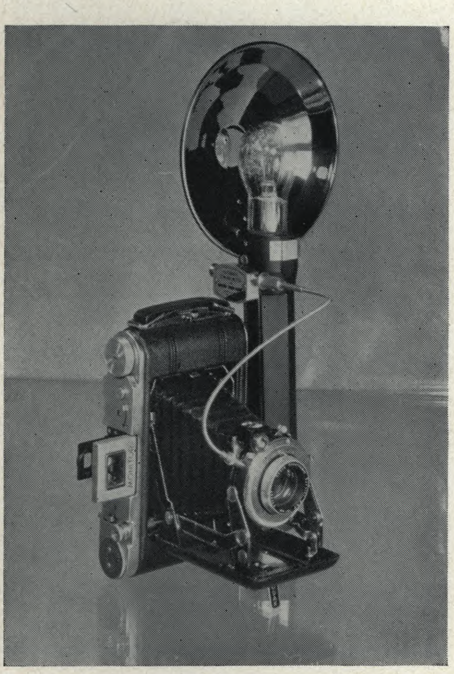
Movie-Mite Sound Projector For Home Use

The Movie-Mite Corporation, 2411 East 15th Street, Kansas City, Missouri, announces a new, light-weight, 16mm. sound-on-film projector designed especially for use in the home. The new Movie-Mite, known as the Model "60," was developed around the basic model which was conceived and is being used as the answer to industrial screening problems. Identical amplifiers, mechanisms and sound systems are incorporated in both models. The well known Movie-Mite features of simplicity, ease of operation and portability have been retained and new features added. Among these are: a finer case, tone control and speeds for both silent and sound film operation. The projector can be used on either AC or DC and is contained in a single case measuring approximately 8x12x15 inches, weighing but 24 pounds—only slightly larger than a portable typewriter. The case accommodates, besides the mechanism and amplifier, cords, speaker, an empty take-up and three 400-foot reels of film. The projector retails for $169.50.

Concurrent with the presentation of the Model "60" Movie-Mite to the trade, the Movie-Mite Corporation announces that at this date immediate delivery can be made on all Movie-Mite models. Need for supplies and materials was anticipated and the projectors are coming off the assembly lines in quantities great enough to supply the present demand.

Radiant Screen Booklet

The Radiant Manufacturing Corporation of Chicago, Ill., manufacturer of Radiant "Hy-Flect" Projection Screens, has just issued a new folder, entitled "For Clearer More Brilliant Projection —Radiant, the Hy-Flect Screen." It contains full descriptions, sizes, types and prices of the complete line of Radiant Screens for home, business and educational uses.



Kalart Automatic Speed-Flash

A new Automatic Speed Flash has just been announced by the Kalart Company, largest manufacturer of flash synchronizers and lens-coupled range finders. Fully automatic in that it requires no winding or cocking before use, this synchronizer is of the mechanical type. It is also a universal Speed Flash, fitting practically any type of camera having a cable release socket. It can also be used with miniature focal plane cameras by the addition of a simple adapter.

Extremely compact in size, measuring only 1½ inches in length and ½ inch in width, the Automatic synchronizer unit itself snaps into the jack terminals of the battery case, requires no cable release and eliminates all wires. An armored, flexible coupling connects the synchronizer to the shutter. The coupling is adjustable for variations in shutters.

In operation you simply press the cushioned release button, setting in motion the inertia rotor which controls the timing cycle, the same basic principle of the famous Kalart Micromatic Speed Flash. Synchronization is unaffected by varying finger release pressure. The Automatic unit may be used with either the Kalart Master or Compak battery cases. With the Kalart Master Battery case and reflector, the Automatic will retail at $18.50 complete. With Compak battery case-reflector combination the price is $14.95. The synchronizing unit only is $10.

Kodak Minicolor Prints

Enlarged paper prints in full color from 35mm. and Bantam Kodachrome transparencies at sensationally low prices are produced by the Minicolor Print Service just announced by the Eastman Kodak Company. Kodak Minicolor Prints are enlarged from Kodachromes in 2x2-inch mounts with standard central openings, and are available in two sizes. The "2-X" size is approximately 2¼x3¼ inches, with rounded corners and no margins, and is priced at 75c per print. The larger "5-X" size affords a print 5⅜x 7-4/5 inches, and prints are returned in mounts—for horizontals 8⅜x10¼ inches, and for verticals, 8⅜x11-9/16 inches, with the central picture-area in either case measuring 5x7½ inches. The price of these "5-X" Minicolor Prints is $3.50 each. Judged by samples of both sizes which we have seen, the quality of these prints, if made from a good original Kodachrome transparency, appears to be excellent. The "feel" of the print, especially in the smaller size, is similar to that of a high-quality playing-card, strong, attractive and resilient. The print-support or base, however, is stated not to be paper or card, but pigmented cellulose acetate which we suspect may be coated with a multilayer monopack emulsion similar to Kodachrome. The makers specifically state that at present the dyes used, while as stable as possible, may in time fade or alter, and the prints therefore cannot be replaced or warranted against change in color. They should be protected from the direct rays of the sun.

New Kalart Range-Finder

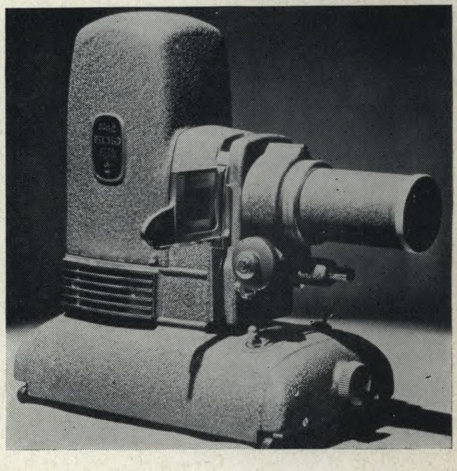
The Kalart Company announces its new model "E" Lens-Coupled Range-finder which will supplant the present Model "F." The new-model range-finder embodies the experience gained in the manufacture of more than 50,000 range-finders. It will fit all Speed Graphic cameras, Watson Press Cameras and most film-pack cameras.

Streamlined in appearance, the new model has a bigger and brighter image which will enable photographers to focus accurately even under unfavorable light conditions. The range-finder is of the superimposed-image type.

Close working distance has been increased from 3½ feet on the new shorter focal-length lenses which will be of prime importance to those doing close-up work and portraits. Mechanically the new range-finder will have all adjustments internally, simplifying installation and adjustment. The range-finder is adjustable for all lenses from 10.5 to 16.5 cm. Adjustment permits owners to compensate for tolerances in focal-length inherent in every lens.

The new range-finder is stated to have been made practically shock proof by ingenious suspension of the synchronizing mechanism.

Price of the Kalart range-finder remains at $24, plus nominal installation charge.



Bell & Howell Bows Minislide Projector

Featuring forced ventilation and a new system of lamp-mounting, the Filmo Slide-master projector for 35mm. minicam slides in 2x2-inch glass or paper mounts, marks Bell & Howell's entrance into the minislide projector field.

Though extremely light and portable, the new projector seems clearly intended for use in fields where maximum brilliance or extremely large screen-sizes are wanted. It makes use of a newly-designed "base-up" lamp which, unlike most projection-globes, is designed to burn in a base-upward position. This, according to Bell & Howell engineers, permits several advantages. The globe is slid more easily into the top of the lamphouse, and in addition, burning in its inverted position, the blackening deposit formed during operation of the lamp is not deposited on the side of the globe, where it would reduce light-transmission, but is carried upward and deposited on what would normally be the base. Thus it is claimed the side-walls of the new lamp are kept deposit-free for the entire burning life, permitting full illumination to reach the screen at all times.

The new lamp retains the familiar Bell & Howell pre-focusing, pre-aligning

(Continued on Page 450)

Enlarging 16mm.

(Continued from Page 415)

color printing routine.

Sound can of course be handled along with the picture. Like most laboratories of this type, Technicolor does no sound-track recording, processing or enlarging, only printing the final sound-track negative in proper synchronism with the picture on the final composite print. Therefore Technicolor requires only a satisfactory 35mm. sound-track, properly cut to footage and matched to the picture. The original recording can conceivably be either direct 16mm. (as in synchronized dialog) re-recorded to make the necessary 35mm. track, or a direct 35mm. recording. Technicolor does not attempt to enlarge 16mm. sound-track to 35mm.; and this would probably be an unsatisfactory method at best, since the losses in definition and resolving power, unavoidable in the enlarging, would almost certainly be far greater than would be involved in re-recording a good 16mm. track to 35mm. For theatrical use, however, a direct 35mm. track would probably be the best, as the frequency-range in direct 35mm. recording and reproduction is still considerably greater than that possible in 16mm.

As has been mentioned, Technicolor is at this writing turning out release-prints on the first professionally-made theatrical short-subject photographed in 16mm. Kodachrome for 35mm. Technicolor release. The film is a Warner Bros.' short-subject entitled "King of the Turf," photographed by L. William O'Connell, A.S.C., and produced by Gordon Hollingshead and Ira A. Genet, both of whom have been most active in encouraging the development of Technicolor's 16mm. enlarging process. Two other 16mm. shorts are now in preparation by the same producers, with more almost certain to follow if these first ones prove as successful as anticipated.

For the present, Genet and Hollingshead have no intention of supplanting conventional 35mm. production with 16mm. enlargements. However, there are certain types of subjects which they feel can be filmed to much better advantage using 16mm. equipment and Kodachrome; some, in fact, which can only be filmed successfully in 16mm. For example, one of the shorts now under way is on diving, and filmed almost entirely in slow-motion, using a "Golf Special" Filmo camera which operates at a speed of 128 frames per second. Though Technicolor has specially built and operated cameras for high-speed photography they do not operate at quite this high rate of speed. The present 16mm. subject is believed to be the first slow-motion subject ever filmed in color; certainly the first to be filmed by any commercial three-color process.

There are also certain types of documentary, semi-news and novelty subjects which can be filmed successfully using 16mm. equipment, but would be out of the question with the bulkier 35mm. black-and-white or color equipment. A film, for example, like "Sailplane," the film on gliding described in the February, 1941, issue of The American Cinematographer, absolutely could not be made in its present form with 35mm. equipment, the weight and bulk of which could not be carried in a one-place glider—much less placed on a twelve-foot bracket on the fuselage or wing of the glider as was possible with the 16mm. equipment used.

Genet states that while his present policy is naturally to keep the production of 16-35mm. Kodachrome-Technicolor shorts as much as possible within the Warner organization, with the photographic work under the direction of proven professionals like O'Connell and others, there is no reason why meritorious 16mm. subjects should not be purchased from free-lance professionals, commercial filmers and advanced amateurs who are willing to take the precautions already described, and to safeguard their 16mm. original by editing from a work-print rather than the original. Such films would, of course, have to be not only of sufficiently high technical quality to be suitable for enlargement, but built around subject-matter of sufficient interest inherently and in treatment to enable the picture to compete with the best professionally-made 35mm. shorts.

The importance of this new development to the industrial film field can hardly be over-stated. It is well known that today a sizeable number of industrial and commercial films are being made in 35mm. rather than the more economical 16mm. simply because the sponsor has outlets for one or two prints which demand 35mm., though the bulk of the release is necessarily in 16mm. In such instances, 35mm. black-and-white is very often used for reasons of economy, even though for the 16mm. portion of the release color, in the form of Kodachrome, would enable the advertiser to tell his story more effectively. To such industrial producers, the possibility of making satisfactory 35mm. enlargements in Technicolor from a 16mm. Kodachrome original, and having his full release, both 35mm. and 16mm. in color, offers a revolutionary inducement.

What the effect of this development may be on the 35mm. theatrical field cannot be foretold with accuracy. As Genet and Hollingshead are proving, 16mm. offers definitely interesting possibilities in the production of short-subjects and novelty films. It may, too, offer independent producers of lower-budget features a worthwhile opportunity. For major-studio feature production, the still superior quality of direct-35mm. Technicolor is naturally obvious. But for these other fields—short-subjects, commercial films, and some types of documentary and educational subjects, the possibility of enlarging good 16mm. Kodachrome to 35mm., retaining the color and quality of the substandard original, truly is 1941's most sensational development, and one which offers tremendous promise. END.

British Amateurs Buying Bomb

The Institute of Amateur Cinematographers (London), following the lead of other more prosperous clubs and groups in England which have raised funds for presenting "Spitfires" to the R.A.F., is reported raising a fund to purchase a bomb to be presented to the R.A.F. by Britain's amateur filmers for delivery to Berlin.

Three-Dimensional Meter

(Continued from Page 417)

Kodachrome, in not only still-cameras and 16mm. cine-cameras, but 35mm. studio cameras as well.

"Then for the final and acid test, I employed the new meter throughout my latest MGM production 'The Chocolate Soldier.' This production gave the meter an unusual range of tests, for it was an elaborate musical, with photographic conditions ranging from big musical and chorus numbers with high-key lighting to normal, intimate action and some heavy effect-lightings. The musical numbers were particularly interesting photographically, for despite the fact they were stage numbers and the camera was constantly moving on dolly or boom, I did not give them a flat 'stage' lighting, but used a more pictorial cross-lighting.

"The technicians and executives at the MGM laboratory have been kind enough to pay me many compliments on the uniformity of the negative I turned out on this picture. Some of them have said it was among the most uniform negatives they have ever handled. While I have not as yet seen a complete cut of the picture, I am told that the entire footage prints within a range of two or three printer-lights.

"As I say, I used the meter religiously throughout the picture. Of course there were times when my judgment and the meter disagreed. I would say to myself, 'This meter can't be right. I've been photographing pictures for more than twenty years, and I *know* that light is too hot or too dim. Even if the meter says differently, I'm going to change that light.' *But whenever I did—whenever I failed to follow the meter exactly—I found I was wrong. My judgment, rather than the meter's reading, was off.*

"Until I made this test, daily checking my negative against the meter's performance, I don't think I'd realized quite how much the test system of negative development can help the cinematographer. If he is a bit under or over on his exposure-level or contrast-balance, the tests show it, and his negative can be given special development to compensate for it. But with a meter as accurate as I've found this one to be, this problem is minimized if not completely eliminated. If one works under the test system, the laboratory's task is easier for lighting can be held so uniform the tests will all show the negative can be given strictly normal development. If one works with strict time-and-temperature processing, he can

GUARDIANS OF QUALITY

EASTMAN negative films—in their respective fields—faithfully record the astonishing beauty of modern screen productions. In fact, the films' ability to more than keep pace has had a lot to do with the general improvement in quality. Eastman Kodak Company, Rochester, N. Y.

J. E. BRULATOUR, INC., ***Distributors***
Fort Lee Chicago Hollywood

PLUS-X
for general studio use

SUPER-XX
when little light is available

BACKGROUND-X
for backgrounds and general exterior work

EASTMAN NEGATIVE FILMS

do so, confident that the meter will hold his exposure-values as even as the film's processing. But in either case, the cinematographer should have absolute confidence in his meter, and follow its indications unquestioningly.

"That is why Norwood is insisting that every cinematographer who uses one of these meters must first take time to make enough practical tests so that he, too, is willing to be guided completely by the meter."

The Norwood meter can be used equally well under either artificial or natural light. The method of using the meter is the same in either case: the meter is simply placed in subject position, with the hemisphere pointing toward the lens, so that it receives the same lighting as the principal part of the subject. Where this cannot be done, the meter is placed so that the lighting it receives on its hemisphere is approximately the same as that on the subject.

With reflected-light meters some conditions, such as extreme landscape longshots (such as a panorama across the Grand Canyon, or the like) require a special meter-handling technique, or the use of special calibrations on the calculator-dial which automatically give a proportionately lessened exposure. With the new three-dimensional incident-light meter, this is not necessary. The meter is simply exposed to the same type of light illuminating the landscape, and its reading, as proven by Norwood's extensive tests in black-and-white and color, will be accurate. The same is the case when haze obscures a scene.

The new Norwood "Director" meter is now going into production, and will be available with compensating masks for all types of film and processing conditions, including the laboratory standards at all Hollywood's major-studio and commercial laboratories, Technicolor, Kodachrome and other color-processes. It is understood to be the first of an extensive series of practical photographic developments to be undertaken by Norwood and his associates. END.

Tests

(Continued from Page 418)

can be done. The costume itself must be right. And a "test" made under the most favorable conditions — comparatively close shots which to the unthinking might seem likely to be the most revealing, will tell exactly nothing about what will appear on the screen when the number itself is being photographed.

Therefore the only thing to do is to make such tests under conditions simulating as closely as possible the conditions that you or the man who photographs the production will encounter when the number is actually filmed. It may not be so flattering to the costume, its designer, its wearer, or to your photographic skill. But it will give an accurate measure of what can be expected under the worst of actual production conditions. And that's what the test is wanted for!

It sometimes happens, too, that a test may be made of a player — man or woman—under artificial lighting on the test stage, yet the player is to be cast in an outdoor picture. Of course today we can do a great deal to balance up a player's appearance in interiors and exteriors, with the control possible through the use of scrims, reflectors, booster-lights, and so on. But even so, natural lighting can be much more searching—much more revealing of any defects—than is the fully-controlled lighting of a glamor-lighted interior.

In such a case, therefore, the test should include not only the most favorable lightings and angles, but also harsher, less favorable source-lightings which will as closely as possible approximate the worst lighting-conditions likely to be encountered outdoors when the troupe goes on location.

In other words, tests should be approached realistically. They should show their subject not only under the best photographic conditions possible, but under the worst conditions likely to be encountered in the course of actual production. They should, in short, live up to their name, and test every conceivable possibility—good and bad—and do it searchingly. If they do that, they can prove an ever greater asset to production that we're accustomed to considering them. END.

Modern Resources

(Continued from Page 419)

ing the regular audience. They laid down a fixed rule that no special lighting would be permitted: if we could get our pictures under their regular lighting, well enough; if not, that was our misfortune, not theirs.

None the less, we went to the horse show. We had with us an ample supply of Super-XX film, an assortment of coated Baltar *f*:2.3 lenses ranging in focal length from 28mm. to 6 inches, and one of the 20th Century cameras, and we hoped for the best.

But when we reached our location, our hopes fell abruptly. It was an open-air arena roughly 100x200 feet in size. The illumination—for the scenes were to be filmed at night—was supplied by fourteen 1000-Watt globes strung above the field in three rows, and a series of much smaller globes far back around the top of the grandstands. For visual purposes, the illumination wasn't too bad, but for photographic purposes, it was impossible. When I went out into the center of the arena to measure the light, the needle of my General Electric meter wouldn't even flicker.

As if that wasn't discouraging enough, the ground was covered with the dark red-brown tanbark customary in a riding-arena. With such illumination (or lack of it) and such a non-reflective background, we saw ourselves returning to the studio with beautifully blank film, with possibly here and there an occasional scene of a ghostly white horse floating about in this dark field, its red-coated rider as invisible as the invisible man.

None the less, after making a hand-test which proved reassuring, we set up our cameras and went work. After all, we reasoned, we had heard a lot of theoretical claims about what could be done with Super-XX film, coated lenses and a 200-degree shutter. Now we had a chance to prove or disprove these theories in actual practice!

When, two days later, we returned to the studio with several thousand feet of film, we weren't especially confident of what we'd see when we screened the rushes, especially as the negative received strictly normal time-and-temperature development. But the rushes—and still more, the light-tests—amazed us. Photographically speaking, every scene was usable! Moreover, the scenes were as fully-exposed as though they had been filmed under completely controlled lighting conditions: as the illustrations show, instead of printing, as might be expected, at the low end of the printing-scale, they printed well past the middle-point, ranging from light 13 to light 17—precisely the range any laboratory prefers for the best results!

The quality, gradation, grain-size and definition were another surprise to us all. We had expected—if our negative yielded anything at all printable—to get very poor quality, with a steep gradational scale, noticeable grain-structure, and very poor definition, the sort of scenes which at best would look distressingly worse than inferior newsreel clips if cut into a well-photographed studio production. The illustrations, I think, will indicate that just the reverse of this was actually the case; that—especially when setting, action and photographic conditions are considered—our scenes have a surprisingly good photographic quality.

Another thing that surprised us was the exposure-values we got in the half-lighted areas in our wide-angle longshots. Several of these, for instance, showed in the foreground some members of the audience: and instead of showing them in harsh silhouette as might be expected with the strongest illumination concentrated on the arena, we saw on the screen surprising well-rounded figure-lightings, with a reasonable amount of illumination even penetrating under hat-brims, and the like.

These particular results, I am convinced, are due only to the particularly fortunate combination of materials and equipment we employed: Super-XX film, coated lenses, and the 200-degree shutter of the 20th Century camera. But in a broader sense, I think they give a very clear indication of the point I tried to suggest at the start of this article: that we have today equipment and materials which can make possible many things we are not as yet doing, or at least not doing completely, with what we have. And to me, at least, it indicates clearly that now we have these technical possibilities before us, we have opened the way to a new range of atmospheric and background material which heretofore we could not use because we could not photograph it successfully. Now we can; and let us hope we may make the most of it! END.

"B" Pictures

(Continued from Page 420)

that permits or even demands definite "mood" lightings—or a director who either gives you a free hand or is as willing as you are to work for pictorial effect. In that event, as I've found from personal experience on two continents, you're likely to feel more pleased with what you've done on the little picture than on the big one!

So—why look down on the "B"? It may be harder work, and bring less critical credit—but it gives a chance for artistic and technical experimentation that no imaginable amount of tests can possibly do. And in the long run, if we can learn to use program-picture assignments this way, I'm confident we can turn them even more to our advantage than the more publicized "A's," for what we learn on the "B's," working against time and scanty facilities, we can certainly put into perfected practice on the "A's," where it will bring us the bouquets no one ever thinks of handing to even the best of the "B's!" END.

Cinematographer for China

(Continued from Page 421)

processed in Eastman's Hollywood plant, Shamroy will review it and send a cabled report to Liu. This will cause a delay of little more than a week in filming most of the color, but both Liu and Shamroy feel that it will be justified, since the 16mm. color-film forms a very important part of the project, as it is to be used on a lecture-tour when Liu returns in six months.

Chief worry to Liu and Shamroy is possible difficulty with the undeveloped negative in Customs. All too often before, prying inspectors have been known to unwittingly fog valuable film by opening it for inspection, or by their occasional use of X-rays to detect smuggling. However, both believe that Liu's governmental affiliations will provide reasonable safety for the negative on this score. They're still worrying about the possibility that the film might be placed in proximity to a shipment of medical radium, the emanations of which would cause the same effect.

When Liu returns to Hollywood and his post at the Consulate, he and Shamroy will cut and edit the film and have it scored as a documentary for general distribution.

"The purpose of this trip," he declared before leaving, "is educational. A considerable number of films have been made in the Chinese war-zone, not only by American travellers and newsreel cinematographers, but by China's own cameramen—the brave little group, analogous in a way to Hollywood's A.S.C., who have, as described recently in THE AMERICAN CINEMATOGRAPHER, made their way from the peace-time studios on the now-occupied cities, and are making both news and educational films in Chungking. But thus far, none of the films made have, to my mind, told the complete story. And it is a great story. I don't know if my own talents are equal to such a heroic story, but I'm going to try! What I'm planning to shoot in China will in no way be either a travelog or a newsreel, but it will be a sincere attempt to present in complete detail the heroic struggle of my people for their freedom, in a way that America's free people can understand. It will not be propaganda, but a simple statement of one of the greatest factual stories being lived today.

"As I leave, I would like to express my appreciation of the cooperation I received from everyone at the 20th

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Century-Fox Studios. The very practical training I had from my friend Leon Shamroy, A.S.C., will, I am sure, prove invaluable to me. It was very fine of him, too, to consider it in a measure as repaying some of the courtesies China's cinematographers there in Chungking have extended to American cinematographers who have been there.

"I want to express my appreciation, too, to the players in 'Confirm or Deny' — especially the film's co-stars, Joan Bennett and Don Ameche, who gave generously and willingly of their spare time in order to serve as models while I experimented with lighting set-ups.

"Incidentally, shooting in underground Chungking the only difficulty in lighting will be lamp placement, since the cavern-shelters are all wired for electricity."

In addition to his work in Chungking, and visits with his father, a high government official, Liu will film scenes in western Szechwan, along the Burma Road, and in China's little-known northwest country. Part of his stay in Chungking will also be devoted to discussing the possibility of augmenting China's present motion picture facilities by setting up an elaborate underground film-processing laboratory there. If this project works out as he anticipates, he will on his return to America buy the equipment for the lab, and send it on its long way to Chungking via the Burma Road, or even by plane.

In any event, Hollywood has sent this son of Free China on his way with a hearty "God speed" ringing in his ears, with heartfelt greetings to Free China's motion picture colony in Chungking, and is looking forward to seeing, some six months from now, Liu's presentation of his country's story on the screen. END.

Charlie Rosher

(Continued from Page 422)

you tell them that this angle or that movement is bad for the camera, they'll become so over-conscious of it that in their effort to avoid it, they'll freeze right up and give a performance much below what they really can do. The critics simply say the actor has given a bad performance; but maybe it was the cinematographer's psychological technique that was really at fault.

"Some of our modern equipment and methods have given us a remarkable advantage when we're working with players like this. For example, a few years ago I made a number of pictures with a star who had a particularly square jaw: to get the best results, it was necessary to soften or shade the front-light when she turned to certain angles, or when the camera dollied to her in certain ways. The most effective method, I found, was to mount a special lamp on the dolly, and sit beside it with a little paddle with which I could shade the light as necessary during the action. I've no doubt it was disturbing to the people on the other side of the camera—but it was the most effective method available then. Today, we can simply mount a "Dinky Inky" on the camera, and manipulate it by remote control through a dimmer. Your lighting-control will be equally precise — but the player will be much less conscious of it.

"And in that direction, I think, lies one of the most interesting trends I've noticed during the years I've been active in cinematography. We hardly realize it at the time, we're so close to it all: but each successive technical advance that has come along has tended in some measure to make conditions on the set more natural. When I first entered the profession, we had weirdly artifical-looking make-up, sets that were often unnaturally colored to suit the old ortho film, and glaring, flickery arc lights. Today, make-up is all but unnoticeable; panchromatic film makes it possible to photograph natural-appearing sets, and the nature and intensity of our lighting are rapidly approaching normal room-level standards, so that, all told, the actor can feel he is under much more nearly normal surroundings than ever before.

"In fact, in some instances, he can actually do his work under strictly normal surroundings. In my most recent film, "One Foot in Heaven," we filmed several important sequences in this story of a clergyman's life actually within one of Los Angeles' finest churches. Not so many years ago, it would have been impossible to do this. In the first place, the church would scarcely have tolerated picture people working there; in the second place, it would have been technically impossible to light such an edifice photographically and yet obtain a natural result. But times have changed. We made our scenes there: photographically they're even more effective than any set could have been—and believe me, our players were so conscious of the surroundings that they gave more convincing performances than they might have given on a studio set. And as a result of this combination of technically and psychologically fitting surroundings, I am sure the results on the screen will prove more dramatically convincing than any of us could have obtained a few years ago." END.

Title Trickery

(Continued from Page 427)

try the following, which involves more cardboard and Scotch tape. The title to be filmed last is centered in the easel in the usual manner. The second title is placed over the easel face and taped by the upper edge to the top of the easel. Then place the opening title over this and tape one edge to the easel. In action, the first title is filmed and then moved horizontally out of lens range revealing the second title, which, when sufficient footage is exposed, is lifted vertically bringing to view the final title of the series.

A wipe in title photography sounds almost impossible but a cut-off wipe can easily be made using more cardboard and your titler. Trim a heavy piece of cardboard to fit exactly into the area framed by the easel standard. Paste this to a piece large enough to fit into the springback of the easel. This combination forms the title registration base as it can always be fitted in the same position in the easel.

Type or print your titles on two pieces of paper of the same dimensions as the larger section of cardboard. Paste the second title to be exposed on this base. Then place the opening title over this, but only paste it by one edge.

Fit the whole in the spring-back of your titler. Expose the necessary footage of the opening title, then remove and snip a diagonal strip from the loose end; replace and expose one frame. Keep repeating this operation until the whole of the lead title has been snipped away. Then film normally for the required footage in the second title.

Although the title is removed a considerable number of times during the single frame action necessary in making the wipe, it can always be refitted exactly by means of that portion of the registration base fitting inside the easel aperture. Thus wipes of this type can be made as easily as regular titles and there need be no fear that the text will be jumpy during the single-frame action. END.

Editing Vacation Films

(Continued from Page 428)

prise "twist," like an O. Henry short-story.

Another thing you're likely to discover as you go through your film on your viewer is that it's likely to have too much footage of scenery, and not enough of people and action. This can often be remedied, professional-wise, with "added scenes" which you can make at home. Show yourself and the members of your party doing things you *might have done* on the trip—you, fussing with your camera — your wife ruffling the pages of road-map or guide-book—Junior eating a hot dog or ice-cream cone. Shot against a non-committal background and cut into the picture at the right spot, they'll seem as though they were made at the same time and place as the scenic shots. And they can add a very necessary "lift" to what might be an otherwise dry parade of scenery.

Always remember, too, the basic professional rule for "establishing" a new location: begin with a long-shot, and work progressively in to the closest shots you've got. If you shot the Mt. Rushmore memorial, for instance, begin with the long-shots made, perhaps from a distance, with your normal lens, and come progressively closer with the closer shots you made from nearer points, and with your telephoto lenses.

Editing a silent picture, you'll have to think about titles, too, and this is a pretty good place to begin. If you can, give your picture a "sneak preview" before one or two friends who aren't familiar with the places you went or the things you did. Notice at what points in the film's course they ask questions, and what they ask about. You'll need titles there. And your answers, boiled down to minimum wordage, will give a pretty good idea of what the titles should say.

And here you can borrow a trick we used to use back in the silent-picture days—making what we called "scratch" or temporary titles. Shoot them on the cheap, positive film which you can get for less than a dollar a hundred feet. Make them simple — just typewritten letters on a white card. Have the film developed as a negative, so that your white card comes out black, and the black lettering, white. Have the film developed in a high-contrast developer, by the way, so that the blacks will be really black, and the whites, white.

Cut these temp titles into their approximate places in the reel, and have another "sneak preview." See if the meaning of your film, as explained by picture and titles, is clear. If it is, shoot your final titles—black-and-white for a monochrome picture, and Kodachrome *always* for a Kodachrome picture.

Now cut these final titles into the picture. Sometimes you can slip them right in where the temp titles went. In other instances, you may want to alter their position a bit. This is especially true in the case of spoken titles, which should be handled this way: a short footage of the person speaking, shown in a close shot as he starts to speak; the title; and finally the remaining footage of the shot of the person. Often, by the way, you'll be able to eliminate quite a bit of footage in the middle of these scenes where you cut in spoken titles.

Now study your almost-completed film again, and start editing for tempo. Where a sequence drags, you can often speed it up by simply cutting the scenes shorter, and — if possible — using more and varied angles on the same action or view. On the other hand, if you want to get over an impression of peace and placidity—as in a quiet vacation lake—use longer scenes and fewer changes of angle.

When you want to keep things moving well, don't be afraid to cut close on exits and entrances. Instead of beginning a scene before a person, car, train or the like gets really into the frame, cut so the scene begins with your person well into the frame. In the same way, in an exit, cut as soon as it becomes clear the person is leaving the scene.

And since draggy tempo is a weakness of most vacation films, don't be afraid to trim most of your scenes short, and have plenty of different scenes in your picture. I've seen one professional travel-film — a one-reeler — which crowded no less than 235 scenes into a single 1000-foot 35mm. reel (equivalent to a 400-foot 16mm. or 200-foot 8mm. reel.) This was perhaps a bit too short—but it made the picture march along very briskly indeed.

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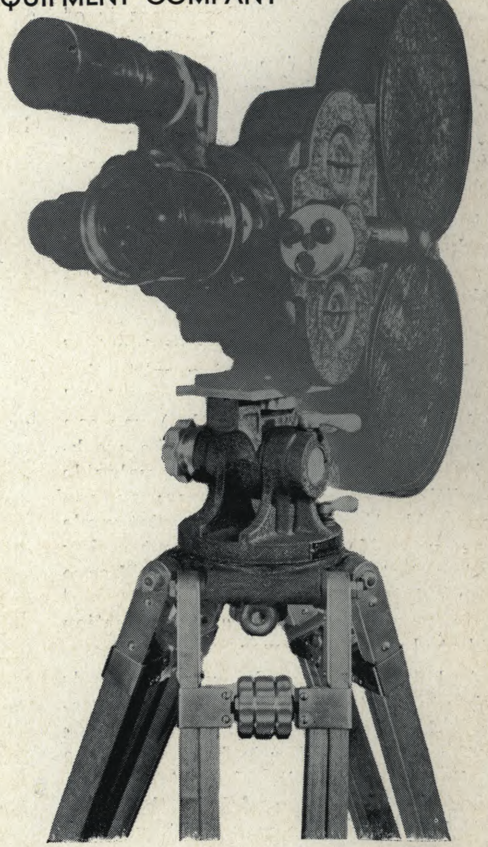

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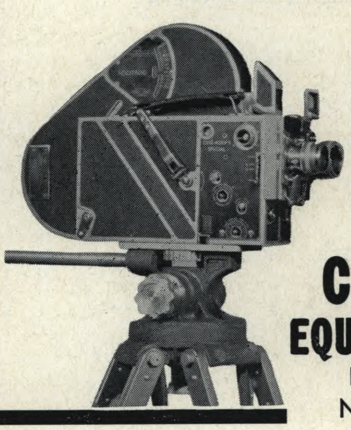
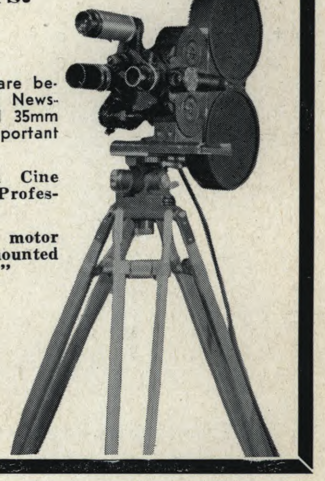
Right: 35mm Eyemo with motor and 400 ft. magazines mounted on "Professional Jr."





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Finally, study your film on the screen again, and see where it will be helped by putting in Photofade fades and wipes. They will usually be most useful at the beginning and end of sequences, and they're easily made. Put them in and your film is completed and ready to show.

In closing, here are a few little professional tips. Don't be afraid of losing much footage in all this splicing and re-splicing, and in—as is sometimes necessary — juggling scenes and sequences around from one part of the picture to another. If you do your splicing well, you won't lose more than a couple of frames each time you splice—and with the exception of extra fast-moving montages, one frame more or less won't make or break any scene.

If you want to be on the safe side, though, and free to make as many revisions as necessary before splicing, just join the scenes together with strips of Scotch tape slightly narrower than the film, and of course narrow enough to avoid blocking the perforations. These temporary Scotch-tape splices will go through the projector quite safely, and can be ripped apart without damaging the film. We often use them with 35mm. professional film, which is subjected to much greater strains in projection than the slower-moving 16mm. and 8mm. film ever is.

Remember, too, that cleanliness is of the utmost importance in handling film, especially reversal-film, where your projection-print is also your irreplaceable original. Be sure your cutting-table is clean and dust-free; handle the film as much as possible by the edges; and wear light cotton gloves to avoid finger-marks.

If you are editing a picture—either black-and-white or Kodachrome—which you know is going to be shown a lot, either privately or for commercial or educational purposes, protect your priceless original by having a "work-print" made, and do your editing with this work-print. When the task is completed (all but making the final titles) you can match up the original with the work-print. This idea is particularly valuable in editing Kodachrome pictures; you can have a black-and-white work-print made from your Kodachrome for just a few cents a foot—and by using it, you'll save your original from much handling and the wear and tear of frequent projection and study on the viewer.

And finally, if you know your film is going to be shown very often, as in commercial and educational pictures, as soon as the task of editing is finished, have a duplicate made of it. Use this dupe as the projection film, and keep the original, for if the dupe wears out, you can always have another made from your original—but once the original is worn out, you can't make a fresh dupe that won't reproduce every scratch and blemish of the worn-out original—and you'll find your picture is gone, too! **END.**

Selecting Music

(Continued from Page 429)

Weary Way;" and "Quips and Cranks and Wanton Wiles" on British Columbia 9406 and 9407. These two suites, with others both of his more familiar and less-known compositions have been assembled in two special albums, "Albert W. Ketelbey Albums No. 1 and No. 2" by Columbia's British affiliate. While unless the Gramaphone Shop or perhaps Columbia's main plant has them, these records would be very hard to get at present, I cannot recommend them too strongly.

Another pair of Ketelbey compositions, fortunately more easily obtainable, which are invaluable for scoring, are "Wedgewood Blue" and "The Clock and the Dresden Figures," available on (American) Columbia No. 50334-D. The former is also available on a Victor recording. These two pieces are particularly good as light, cheery accompaniment for films of children. Another that would be fine for this purpose is Columbia No. 69143-D "Dance of the Fairy Princess" and "Sunday Morning," from Lord Berners' suite, "The Triumph of Neptune."

Sometimes you'll want music of particular sweetness and beauty to accompany spectacularly lovely pictorial shots. Among the records I have used for such scenes I can recommend Victor No. 36038, which has on one side Godard's "Adagio Pathetique," and on the other the first movement of Beethoven's "Moonlight Sonata." Another useful record for this type of scenes is Victor No. V-50005, Lehar's "A Kiss at Dawn." Still another is "Gymnopedie No. 1," by Erik Satie, on Victor No. 7252, which, by the way, is on the opposite side of the disc carrying the third part of Victor's recording of Ravel's "Bolero."

This listing could easily be extended much farther, for of course it scarcely scratches the movie-scoring possibilities of recorded music. But, even ignoring the several British recordings mentioned which, though invaluable, would not be easy to obtain under the present circumstances, it will give you a total of 14 easily-available American discs which should enable you to score virtually any home or vacation movie. Of course, if you travelled to some unusual spot like Hawaii or Mexico, you should add to it sufficient Hawaiian, Mexican or other special records to take care of that specialized type of picture; and it is always a good idea to have one or two good military marches to accompany parades, and the like. But in general, I have found from experience that the discs listed will take care of any scoring problem likely to arise in most amateur home or vacation movie, providing a pleasing accompaniment, well-suited to the picture, yet not so musically ornate or so frequently played that the score will contend with the picture for the audience's attention. **END.**

Artificial Light Exposures

(Continued from Page 430)

Moreover, the time taken to find a good grey tint or to blacken in the squares is considerable. The writer spent a good deal of time finding the most generally useful and durable material for an artificial high-light, and concluded in the end that there is nothing so satisfactory as white sand-blasted celluloid. This can be washed without becoming shiny or altering its characteristics in the least, while it can be readily cut to any size needed and is also mechanically strong.

Before leaving the reader to his own devices, the writer would ask anyone who tries the above method to give it a fair chance. Any attempt to correct what appears to be a false exposure-reading for exposure will lead to a non-standard image quality, and it is much more kind to use the method mechanically on a variety of subjects before attempting any criticism of it.

In this connection, it may be interesting to tell a short story. Some years ago an eminent authority came to England from Germany for a visit, who reckoned to be able to expose reversal film perfectly on a basis of uncompensated processing merely by looking at the subject and guessing what the stop number should be. This authority took out a camera and exposed as he thought correct on a large number of subjects, while a duplicate camera exposed another identical film by the writer's artificial high-light method. The two men using the cameras wrote down the stop numbers they used, but did not mention them to one another. The two films were then processed identically, and on projection it proved impossible to detect which was which, while a comparison of the stops used showed that there was never more than a quarter of a stop number between the two.

The writer considered this a compli-

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ment to the judgment of the authority, but the latter remarked that he had spent fifteen years learning to expose reversal film, and it was a little distressing to find that any fool using a mechanical instrument could get just as good results as he did himself! END.

Clyde DeVinna, A.S.C., and Operative Cameraman A. L. Lane inspecting a Cinex Strip with an S.V.E. Picture Projector.

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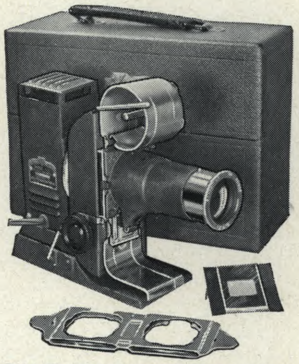

S.V.E. Tri-Purpose Projectors range in size from 100 watts to 300 watts. They have many exclusive features that make for simplified operation. Shown here is the 100 watt Model CC.

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Scenario

(Continued from Page 431)

Scene 6. Close-up of **Carol.** She nods agreement. FADE OUT.

Scene 7. FADE IN. Night-effect shot of **Carol** in her crib. She gets up and scrambles out of bed.

Scene 8. Medium long-shot. **Carol,** holding a candle in her hand, comes through the kitchen door.

Scene 9. Night-effect: Close-up of **Daddy** in bed snoring.

Scene 10. Same as Scene 8. **Carol** closes the door behind her, and advances toward the camera.

Scene 11. Close-up of kitchen clock. The hands point to 12:05. The first part of the scene is a blue-lit night-effect; this changes to normal white light as **Carol's** candle approaches offstage.

Scene 12. Medium-shot of icebox. **Carol** opens the door, looks in and starts taking things out.

Scene 13. Close shot of **Carol** at ice-box. She takes out a banana and starts to eat it.

Scene 14. Close-up of pile of food from ice-box on floor. Camera pans left to **Carol,** sitting on the floor and eating the banana.

Scene 15. Same as Scene 9.

Scene 16. Close-up of floor beside ice-box. A can of pickles tumbles on floor.

Scene 17. Same as Scene 15; **Daddy** wakes up and listens.

Scene 18. Similar to Scene 16. A can of condensed milk falls onto floor.

Scene 19. Long-shot of **Daddy.** He gets out of bed, puts on his dressing-gown and exits stealthily.

Scene 20. Close-shot by door; **Daddy** opens it, then goes to ice-box.

Scene 21. Close shot of ice-box door. It flies open and **Carol** is seen inside!

Scene 22. Close-up of **Carol,** laughing. She speaks.

TITLE:

"YEHUDI DOESN'T DO IT—I DO!"

Scene 23. Similar to Scene 22, but longer angle. **Daddy** reaches in and picks **Carol** up.

Scene 24. Close-up of **Carol,** held high in **Daddy's** arms, his head in foreground. She is laughing happily. He nods his head solemnly.

Scene 25. Close-up on floor. Another can falls to floor and rolls.

Scene 26. Close-up (night-effect) of **Mother** in bed. She wakes, and looks up, listening.

Scene 27. Medium-shot of **Mama,** sitting up in bed, she looks around and nods, then gets up, reaching for her dressing-gown.

Scene 28. Medium long-shot of kitchen door. **Mama** enters, and stands looking sternly at the camera.

Scene 29. Medium-shot of **Daddy** and **Carol,** squatted on kitchen floor, eating a midnight snack. They look up at camera, suddenly guilty.

Scene 30. Close-up of **Mama.** Her frown dissolves into a smile. She speaks.

TITLE:

"NOW YOU TWO HAVE FOUND YEHUDI—DON'T LOOK FOR HIM AGAIN IN MY ICE-BOX AT MIDNIGHT!"

Scene 31. Medium-shot, similar to Scene 29. **Mama** is squatting between **Daddy** and **Carol,** happily enjoying her share of the midnight repast. FADE OUT.

Lenses

(Continued from Page 432)

If the focal length is 25mm. (1 inch) and the opening is 3.12mm., the f-value is 8.

If the focal length is 75mm. (3 inches) and the opening is 9.37mm., the f-value is also 8. In each lens the transmitted light-value is the same and the exposure of the film would be identical. Sounds odd, but it is true. The calibration of the diaphragm openings are usually marked on the lens barrel as f:1.5 - 1.9 - 2.7 - 3.5 - 4.5 - 5.6 - 6.3 - 8 - 11 - 16 - 22.

The speed of a lens is determined by the size of the widest diaphragm opening. Hence, a lens of f:1.5 or f:1.9 is faster and will admit more light than a lens of f:3.5 or f:4.5 value. If, however, the fast f:1.9 lens is closed down to an opening of f:3.5 it has no advantage over the f:3.5 lens as each admits the same amount of light at that stop. The only advantage the f:1.9 lens has over the f:3.5 lens is its ability to admit more light under poor light conditions.

The diaphragm of a lens provides another function in photography. With its use in controlling the amount of light, it can also be used to increase sharpness and depth of field. Depth of field of a lens is the distance in front of and back of an object focused upon, that remains sharp at a given diaphragm opening. This extra play of sharp focus in motion picture photography is, of course, a great benefit, as the action can move back and forth in relation to the camera yet remain in focus. When the diaphragm is opened to large apertures this depth of focus becomes very shallow, but as smaller apertures are used the depth increases rapidly. An object which is 6 feet from the camera may be greatly out of focus when the diaphragm is set at f:1.9 but the same object could be sharp when the aperture is reduced to f:11 or f:16.

Lenses of long focal lengths, such as telephoto lenses, must be focused critically as these lenses have less depth of field than short focal length lenses. Oftentimes a matter of a few inches will throw the subject out of focus when using a telephoto, whereas the natural depth of field in a short focal length lens would embrace the subject. When using your telephoto lenses always measure your distances to the subject unless you are filming distant objects or using small apertures. Do not estimate these distances as you may miscalculate and get an unsatisfactory result. If you can't measure the distance with a tape-measure, use a rangefinder!

It is well to memorize the angle of acceptance of each lens you use, because exposure meters have various field angles, depending upon the model you are using. As an example, you would get an incorrect reading on a meter which is registering light from an angle of 60 degrees from the camera, for example, and filming with a lens having an angle of acceptance of only 20 degrees. In this case, the meter is registering three times the amount of light that is penetrating the camera lens, and would result in underexposure. When using a combination such as this, take the reading about two-thirds the distance to your subject. END.

16mm. Commercials

(Continued from Page 433)

Wifey wasn't too much of a photographic success in that cute little colorful outfit she had bought specially for the occasion. She was outclassed by the scenery and you didn't know she was in the picture unless she moved; which she seldom did. But then somebody would yell, "There's Helen" and the others would chorus politely, "Oh yes. Isn't she cute." But by that time Helen would be replaced on the beaded surface by a sunset or something. It was funny about Helen. She would just stand and grin at the lens. She never wanted to move when she was having her picture taken. Our patient thought it was a throwback to the old still picture days when she would always move and blur the picture.

All the time this preview was going on our patient was listening to the Oh's and the Ah's, the generous praise of the audience he would afterwards feed. Their happy laughter and their genuine delight acted upon him like a heady wine. These people appreciated him. They appreciated this work that he did in his spare time because he liked, nay loved to do it. Their praise, their enthusiasm acted on him like an insidious drug. It stiffened his resolve. Why not?

In the crowd that he and his wife went around in there were always others to carry off the honors in tennis or badminton or any of the other mild relaxations they indulged in. He never shone. He didn't even dance well, Helen told him.

But when it came to home movies though, he was the only one to shine. In that field he had no competition. Standing beside his projector in his darkened living-room, with the enthusiastic praise of his friends mingling with the reflected glow from the screen our patient became a new man. Really he became "the patient."

After the showing, when the lights had been turned on again, the conversation continued around the movies that had just been shown; and the idea that had been germinating in our patient's brain began to take form.

"Do you really like them?" he asks earnestly.

They pause to swallow the current mouthful of cake.

"Like them? Why they're marvellous." They reply in a burst of confidence.

"I think they're just too darling" sums up a girl friend of Helen's who, to everyone's disgust, affects a southern accent.

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"And that color was just gorgeous," someone says.

They all agree and the significance of the photography of "Gone With The Wind" pales. Our hero, remembering that that epic cost around 3 million and that his two rolls of Kodachrome had cost him 16 bucks, plus tax, decided then and there that a hell of a lot of money was being wasted in the motion picture business.

His mind went back to the movies he had seen from time to time at the luncheon-club to which he belonged. Dull, uninteresting things most of them, of trips through this factory or that bottling works. But people got paid for making them! Actually got paid, by the people whose factory or bottling works he saw pictured, for shooting a camera. A delightful, shiny camera. And it wasn't as good as his stuff. His friends said so. Some people have all the luck.

Then he thought of the job he had been going to steadily day after day, year after year. He had always liked it; but now it seemed to pall. How had he stood it? Auditor! Auditor indeed! He wasn't cut out for such work. He was an artist. Hadn't he proof of it? Hadn't he seen people held spellbound by the beauty of his pictures? Heard them laugh at the humor that, he admitted to himself, hadn't always been intentional but which some inner genius, he reasoned, must have guided him to take? Hadn't he seen them respond to his human-interest bits of his children and the neighbor's dog?

Let others win approval at bridge or crossword puzzles! Movies were his work! Thank God he had found himself in time! He was still a young man. But there's no time to lose. He wouldn't waste his time trying to get into the Hollywood studios . . . yet. He was too smart. Too much nepotism there. He'd heard all about it from people who knew. You had to be related to somebody. But he'd force them to recognize him.

He'd form his own company. But did he really need a company? He could do all the work himself. It would be easy to sell people on the idea of making a movie of their factory or whatever they had. Then he'd shoot it and splice the scenes together. Sound? He'd heard that there were people to do that sort of thing for him. And he had all the equipment. Well, anyway, he had a camera.

Why, all he needed was a name. A name and some letterheads to put it on. Let's see, a name . . . hmmm . . . Ah, Apex! That would do. Apex motion picture company. Our hero, president. He'd need some cards, too. Those he could order on his way to work in the morning. But he wasn't going to work in the morning. He would have to stop in though and tell the old man that he was through; that he had found himself in time to prevent being a wage slave. A wage slave for the rest of his life!

But we have carried our factual fancy too far already. Even as a narrative I cannot carry on the story farther without bursting into tears as the story develops and our hero meets one disillusionment after another. So halt, impulsive youth and consider the following pertinent facts, to wit:

The people who are so genuinely enthusiastic about your movies wouldn't be so loud in their praise if they were paying for them out of their own or their companies' pockets. After all, they're your friends. They're not looking for faults and if they see them even your best friends won't tell you.

But the people for whom you make movies for cash (you hope) *do* look for faults and what's more they find them.

Your friends know that this is just a harmless way you have of keeping yourself amused in your spare time and, because friends are that way, they don't hold it against you. They know that even at the worst they can go home a little later. Maybe sooner if they can think up a good one.

But when people—especially businessmen and advertising agents—pay for a thing, they feel they've purchased the right to find faults, whether they know anything about movies and movie problems or not. They're not interested in "arty" photography or pretty landscapes. They don't care whether or not you make the people in their movies look as glamorous as George Folsey makes Hedy LaMarr and Clark Gable. But they have a particularly nasty way of raising Cain if you don't deliver good, clear, fully-exposed photography in every scene. They raise worse than Cain if you don't show their product, their factory and its processes clearly and glamorously to the tiniest detail.

But your photography is good! All right, it's good. So what? Can you turn it out, scene after scene, under adverse conditions, and working on a cramped time-schedule, with half-a-dozen people badgering you to hurry up, to get out of the way, and to be sure and get this or that?

And there's the message. A message? You never thought of that, did you? Well, every company that pays to have a movie made has a funny little habit of insisting that the picture carry a message. That's what they're buying—a movie to take their message to all the people who sit in on the film's screenings. That's what they're paying for. And, by gum, that's what they're going to get, even if they have to break the movie-maker's neck (and heart) in getting it!

So if you've followed me this far, dear reader, sit back a moment or so and do a bit of probing in your own subconscious. Do you recognize any of the patient's reactions as similar to emotions that have been stirring within your own breast? If so, take a good swallow of this bitter pill: making movies for pleasure and making movies for business are two very different things. Moviemaking for pleasure is rightly classed as one of the finest hobbies in the world. If you do it even reasonably well, all your friends and acquaintances are ready to pat you on the back and tell you how good you are.

But moviemaking for pay is an entirely different thing. It's a crowded and precarious field. Even in the relatively new field of 16mm. commercial moviemaking there are a lot more hopeful producers than there are pictures to be made (and paid for.) So it's a long wait between jobs—and unless you're one of a scant handful of proved top-notchers, it's rock-bottom prices and small profits, or none, when the jobs do get lured in.

And the people who pay for movies naturally feel they've a right to buy results. They'll complain of things you never thought of, and take as a matter of course achievements an amateur would crow about for months.

In other words, as a movie hobbyist, your failures are forgotten, your successes remembered and magnified. As a movie professional, your successes are taken as part of the job, but every slightest failure is remembered, magnified, and held lastingly against you. As soon as you take money for doing photographic work, you're expected to be good —and woe be to you if you slip, even for a single scene!

What? You don't think I've even yet made out a case that's strong enough to weaken your resolve to go commercial? Well, consider the further adventures of our mythical patient. That'll cure you! Only we'll have to do it next month, for the Editor tells me we're running out of space. So be patient— if you can—until next month. Like an old-time movie serial, our next installment will pack plenty of drama for our hero, and (like a modern realistic film) even more disillusionment and discomfort. So we'll see you here next month! END.

Movie Clubs

(Continued from Page 434)

in Texas, written in the form of a Naval order commanding a little response to his numerous communications, was also read.

Mr. Garlock gave details as to the Pet-, Comic-, and Backyard-movie contest to be held at the September meeting. The closing date for the Ladies' Contest, to be held at the October meeting, was set at October 11th. The Chairman gave further details and assignments for the Club's forthcoming picnic and Fun Fiesta, to be held Sept. 28th.

A very unusual picture was shown by Honorary member Bill Stull, Editor of THE AMERICAN CINEMATOGRAPHER. This film was sent to the magazine for review by Joseph F. Hollywood, of New York's Metropolitan Movie Club, who many remembered as the maker of the A. C.'s popular prize film of a few years back, "Two Kids and a Pup." Mr. Hollywood's present film was in two parts, entitled "Democracy" and "Mr. Hitler Never Loses." In both camera-treatment and subject-matter (national and international politics) Mr. Hollywood's films proved unique and well worth seeing.

Pictures shown by members included Frank De Virgilio's "A Tale of the North," two films of previous club picnics filmed respectively by Bill Millar and Irwin Dietze; "They'll Do It Every Time," by Alva Cadarette; "It Happened One Night," by W. D. Garlock; "The Kleptomaniac," by Bion Vogel; "Desert Springtime," by past-president Dr. Robert Loscher; and "Hawaii Bound," by Phyllis Zeh.

BETTY BARNEY, Secretary.

Idea Exchange

(Continued from Page 437)

to any angle to act as a sunshade. It's a good idea to make the base mounting so you can use it on either side of your camera, according to the direction of the light you want to shade. With some of the larger 16mm. cameras like the Filmo and Cine-Special, you can shorten the rod and put your mounting-block right on top of the camera, the way professionals sometimes mount a visor on top of the camera-blimp.

JACK GREENHALGH, A.S.C.

Camera-Light for Close-ups

Some time ago I saw an article in THE AMERICAN CINEMATOGRAPHER by Tony Gaudio, A.S.C., telling how he mounted a battery of small lamps on his camera for front-lighting close shots of people. Here's how the same principle, on maybe a more limited scale, can help put in home-movie filming. Most flash-gun manufacturers, like Kalart and others, make special L-shaped brackets for

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mounting their flashguns on cameras like the Rolleiflex, Leica and similar miniatures. Get one of these brackets. You'll see it has at least two holes on each arm, threaded to accept the regular ¼-inch tripod-screw, and a bolt which can be fitted into any of the holes, threaded so it screws into the camera's tripod socket. Screw this into one of the holes on the bottom of the L, and attach the bracket to the camera with it so that the upright part of the L comes up at one side or the other of the camera. Then use the other to screw the bracket onto the tripod.

You can use the upright part of the bracket to hold a clamp-on photoflood lamp beside and slightly above the camera, or you can use a ¼-inch bolt to mount a "Dinky Inky" on the bracket.

This will give you a lighting unit—floodlight or spotlight—beside the camera for front-lighting close shots of people, and which pans and tilts as you pan and tilt the camera to follow them.

ALBERT CHRISTIANSON

Showcase

(Continued from Page 439)

ring which the company has always used in its cine projectors to assure positioning the lamp for maximum illumination. The top of the Slide-master lamphouse is a hinged snap-cover, which automatically breaks the electrical circuit as it is opened, so that lamps may always be interchanged with perfect safety. It is further stated that since the globe burns base up, gloves are not needed to remove a hot lamp.

The Filmo Slide-master is designed to take 500-, 750-, or 1000-Watt base-up lamps, providing whatever degree of illumination is required, at the maximum giving considerably greater lamp-power than is common among minislide projectors. It is stated that the lamphouse is so designed that there is no light-spill from this projector; the darkened room stays dark, except for the brilliant picture on the screen.

With such high-powered lamps operating in a comparatively small lamphouse, forced cooling is an obvious necessity. In this installation the powerful, motor-driven ventilating-fan automatically alters its speed according to the wattage of the lamp being used. Thus when a 1000-Watt lamp replaces one of the smaller globes, the motor automatically increases its speed, and therefore the blast of cool air, and decreases speed when a smaller lamp is used. The forced cooling draft circulates throughout the projector, with special attention given to cooling the slide itself. Motor and fan-bearings are sealed in, lubricated for life. The condenser includes two heat-absorbing glass filters, for maximum slide protection.

Two clearly-marked switches are provided, one controlling the complete projector-circuit, the other operating only the lamp. The lamp cannot be turned on unless the motor fan is running.

The Filmo Slide-master projector is offered with a choice of 3½-, 5-, or 7½-inch *f*:4.5 lenses, all of which are stated to be anastigmatic and interchangeable mounts. Focusing is by a rack-and-pinion assembly, and lenses may be locked in focus. Self-locking tilt-controls, one at each end of the projector, provide either up or down tilt through a wide range.

The slide-carrier, of the conventional horizontal-shift two-slide type, is of die-cast metal with special air-passages to provide circulation of cool air around the slide. Slides are held in the focal plane by springs.

Kotavachrome Professional Color-prints

Kotavachrome Professional Color-prints designates a new and remarkable service just introduced by the Eastman Kodak Company for making full-color paper prints from Professional Kodachrome cut-film transparencies. Kotavachrome prints may be made from any Kodachrome Professional cut-film transparency original ranging in size from 2¼x3¼ to 8x10, with the exception of the 45x107mm. and 6x13 cm. stereo sizes and 11x14-inch originals. Print-sizes range from 8x10 to the record size of 30x40, with the maximum enlargement from any transparency limited at present to 6 diameters.

For the present, at least, all Kotavachrome prints must be made at the Eastman Kodak Company's Rochester laboratories.

Prices for Kotavachrome Professional Prints are:

Size 8x10, prince per print $12, *$6; 11x14, $17.50, *$9.50; 14x17, $25, *$14; 16x20, $33, *$18.50; 18x22, $39, *$22.50; 20x24, $45, *$27; 24x30, $66, *$40; 30x40, $90, *$60.

*Additional prints from same transparencies when ordered at same time.

It is stated that since Kotavachrome prints contain dyes which may in time change, they will not be replaced or otherwise warranted against any change in color. The dyes used in this process are stated by the Eastman Kodak Company to be as stable as possible consistent with other necessary requirements. It is stated that it is important that Kotavachrome prints should not be exposed for long to direct sunlight.

Kotavachrome Professional Prints will be available through dealers in September, according to the Eastman organization.

Booklet on DuPont Copying Films

A new 20-page booklet entitled "DuPont Films for Documentary Reproduction" should prove of interest to both the hobbyist and commercial user of film for photographic copying. All necessary information such as speed ratings, exposure guides, spectrograms, developing times and storage recommendations are included for DuPont Safety Microcopy, the firm's ultra fine-grained panchromatic negative with an effective resolving-power of more than 193 lines per millimeter and for DuPont Safety Positive and Fine Grain Safety Positive, companion films for use in documentary reproduction.

Copies may be obtained by addressing the DuPont Film Mfg. Corp., 9 Rockefeller Plaza, New York, N. Y.

New Bolex Frame Counter

A useful accessory for Bolex cameras is the recently-announced frame-counter, which attaches to the motor-crank shaft of the camera and counts individual frames while the camera is in forward or reverse motion and whether being run by spring-motor, electric-motor or hand-cranked. Two dials are provided; one registers each frame as it passes the gate, while the other registers 50 feet at a time and keeps a record up to 1000 frames. All Bolex cameras with serial numbers higher than 9400 provide means for attaching this accessory instantly. The name-plate is removed and the counter attached to the holes where the screws held the name-plate

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in place. An extension-shaft connects with the camera motor-shaft and the name-plate is fitted into place on the side of the counter. A special spring-motor winding-handle is required, which not only clears the frame-counter as the crank is turned, but also clears the turret when that is turned so it protrudes beyond the side of the camera. Price of the counter is $17.50, and the winding-handle, $5.00.

Photography of the Month

(Continued from Page 425)

erally very good. It is exceptional in the case of Ellen Drew who, though a rising young player, is by no means essentially photogenic. Planer's lighting presents her far more attractively than she has ever appeared before—so much so that our advice to the lady would be to make every effort to have him continue photographing her, for he has literally brought out a new and much more attractive personality through his camera-treatment.

We cannot, unfortunately, say quite as much for his treatment of the other feminine star, Ruth Hussey, who does not fare nearly so well photographically in this production. To our way of thinking, Planer, in his efforts to contrast her characterization with that of Miss Drew, has lit her a bit too flatly and used rather too much diffusion to show her to best advantage. His treatment of Melvyn Douglas is much better, though there are one or two scenes where this player is allowed to turn to show distinctly unfavorable angles to the camera.

The handling of the climaxing fire sequence of the picture is both dramatically and technically a distinct highlight of the production, and stands much to the credit of Planer and the uncredited special-effects staff.

DIVE BOMBER

Warner Bros.-First National Production (Technicolor.)
Directors of Photography: **Bert Glennon, A.S.C.**, and **Winton Hoch, A.S.C.**
Aerial Photography by **Elmer G. Dyer, A.S.C.**, and **Charles A. Marshall, A.S.C.**
Special-effects by **Byron Haskin, A.S.C.**, and **Rex Wimpy, A.S.C.**

As more and more Technicolor films are turned out, it is becoming increasingly evident that there are developing two well-marked schools of thought as regards the use of color. One—best exemplified recently by "Blood and Sand"—seeks to employ color as a means of heightening dramatic mood and effect. The other uses color in a strictly realistic way. "Dive Bomber," as an action-film based on the activities of the U. S. Navy Air Service, necessarily belongs in the latter group. It is an excellent example of this type of color-film.

The most spectacular photographic opportunities the film affords are naturally those given the makers of the aerial scenes, aerial specialists Elmer G. Dyer, A.S.C., and Charles A. Marshall, A.S.C., who cover themselves with glory by the way they have carried out their difficult assignment. In "Dive Bomber" they have produced some of the finest examples of Technicolored aerial pictorialism ever screened. Their scenes of formation-flying and similar aerial evolutions are technically excellent, as well.

Production cinematographers Bert Glennon, A.S.C., and Winton Hoch, A.S.C., are offered less in the way of pictorial opportunities. There is virtually no opportunity for mood or dramatic lightings, as the nature of sets and action alike precludes this. None the less, Glennon and Hoch do excellently with the material at hand. Glennon's work in particular is noteworthy, as we understand he filmed a great part of the picture alone, with no Technicolor associate present, while Hoch was occupied elsewhere, directing the photography of other sequences of the film.

But if the film offers scant opportunity for pictorial and dramatic lightings, it offers—perhaps all the more strikingly—an opportunity for Glennon and Hoch to show what they can do with lighting the players. This they do uncommonly well: Errol Flynn, for example, has never appeared to better photographic advantage, in either black-and-white or color, while co-star Fred MacMurray appears to much greater photographic advantage than he did, for example, in his previous Technicolor appearance, "Virginia," which incidentally was also photographed by Glennon.

Special-effects cinematographers Byron Haskin, A.S.C., and Rex Wimpy, A.S.C., contribute sturdily, if not necessarily spectacularly, to the film. There are many scenes which must necessarily be their handiwork, but which are so skillfully executed that they well-nigh defy detection as process-shots. The scenes showing the principals piloting airplanes, especially, are notable examples of skillful back-projection process-work, some of them utilizing some of the largest background-screens we've seen used in Technicolor.

It is unfortunate that when the press preview of "Dive Bomber" was held, apparently all of the available color-balanced release-prints were needed elsewhere, for the film's spectacular three-theatre premiere in San Diego. In consequence, the print shown to the press was apparently the work-print, which was not correctly color-corrected, and hence in a number of sequences did an injustice to the genuinely fine work of "Dive Bomber's" six-starred team of cinematographers.

WILD GEESE CALLING

20th Century-Fox Production.
Director of Photography: **Lucien Ballard, A.S.C.**

Lucien Ballard, A.S.C., in his first picture at 20th Century-Fox, does a very workmanlike job in bringing "Wild Geese Calling" to the screen. The film does not offer him the most unusual of pictorial opportunities, but he wrings the maximum of effectiveness from every opportunity presented him. His set-lightings and effect-lightings are excellent, and he presents his players to maximum advantage. One might, perhaps, question his rather too-frequent use of extreme low-angle shots with a 24mm. lense which, while effective both dramatically and pictorially, seemed to this writer slightly overdone, so that at times when its dramatic value was most needed, the effect of the trick had

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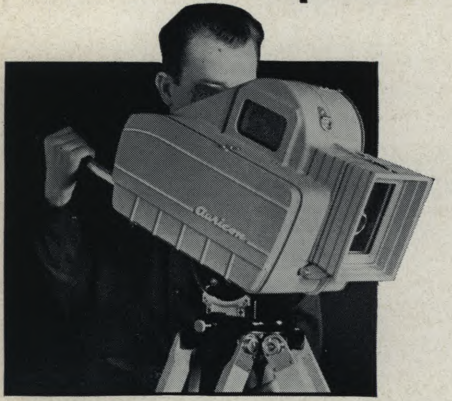

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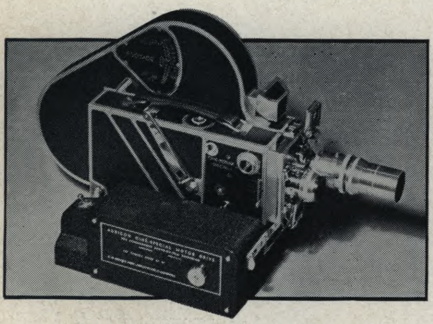

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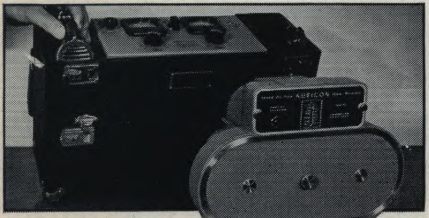

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been largely lost through over-use. However it is only fair to conclude that some, at least, of this repetition may well have been due to mistaken admiration of "Citizen Kane" on the part of director John Brahm, rather than to Ballard's falling from his usual cinematic good taste.

The opening logging-camp and tree-topping sequences are particularly impressive highlights of the film. Whether they were the work of Director of Photography Ballard or of some uncredited second-unit cinematographer they are excellent examples of fine exterior cinematography amid rather spectacular locations. They are further enhanced by some process-shots which are definitely above the studio's usual average.

FLYING BLIND

PCA Production; Paramount Release.
Director of Photography: **Fred H. Jackman, Jr., A.S.C.**

"Flying Blind," third of the unpretentious little films made for Paramount by ex-publicists Pine and Thomas, carries on the standards set by its predecessors by being far more entertaining and technically excellent than its limited-budget class would indicate. Director of Photography Fred Jackman, Jr., A.S.C., has filmed it in a very different mood from that evidenced in the two preceding PCA releases, but his crisply realistic photography is a satisfyingly capable job. His treatment of the players is uniformly excellent, and the set-lightings, though somewhat limited by the restrictions of fairly high-key photography, very good. In the few sequences in which he has a chance to employ effect-lightings—as in the sabotage sequence in the aircraft factory—he uses them capably.

The aerial scenes are excellent, and the film's inevitably many special-effects scenes—also the work of Jackman—are without doubt the best process-work enjoyed by any film in this series.

CHARLEY'S AUNT

20th Century-Fox Production.
Director of Photography: **Peverell Marley, A.S.C.**

As entertainment, "Charley's Aunt" is an obvious hit; but it must be set down as one of the most photographically disappointing productions of the season. In view of cinematographer Marley's acknowledged record of photographic artistry—as evidenced recently by "Adam Had Four Sons" and "Moon Over Miami"—however, it seems more logical to blame the film's photographic shortcomings more upon director or production executives and their conception of "comedy photography" than upon the cinematographer, for "Charley's Aunt" is brought to the screen with the most conventional of fully-lit comedy photography, crispened by the use of coated lenses and then mutilated by an uncommonly bad, toneless gray print.

But, in this reviewer's estimation, at any rate, "Charley's Aunt" is not the sort of a comedy which calls for conventional "comedy camerawork." On the contrary, it would benefit greatly for a more dramatic visual treatment. Its comedy is inherently dependent upon contrasts—the antics of "Lord Babberly," forced into his reluctant impersonation of "Charley's" aunt, in the staid surroundings of Oxford's cloistered colleges. The contrast between this action and the surroundings could be greatly heightened by the use of the same sort of soft, visually rich photography that would normally be used for a more serious drama played on the same sets. Such treatment would throw the slapstick antics into dramatically bold relief, and make them seem doubly incongruous and laughable. But treated as Marley has done it, the background of "Charley's Aunt" becomes unconvincing—a palpable studio

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set rather than the picturesque and conservative British college—and the action is correspondingly weakened. If you are looking for typical Jack Benny comedy, see "Charley's Aunt;" but if you are looking either for Marley's usual intelligent camerawork, or a film in which imaginative visual treatment is applied to making comedy more effective, avoid this one.

THIS WOMAN IS MINE

Frank Lloyd Production; Universal Release.

Director of Photography: **Milton Krasner, A.S.C.**

Special Photographic Effects by **John P. Fulton, A.S.C.**

Milton Krasner, A.S.C., has given this picture a fine photographic mounting. Much of the action is laid aboard a sailing-ship of a century ago, making its slow way around the Horn to Oregon, and Krasner makes the most of this pictorial, if somewhat limited setting. The greater part of this action, incidentally, was filmed actually at sea rather than on a process-stage, and the film gains an atmosphere of commendable authenticity from it. There are many strikingly pictorial long-shots of the ship at sea, though it seemed to this reviewer that those intended for night-effects could have been to better advantage filtered for somewhat higher contrast.

The location-scenes of the action laid at the trading-post on the Oregon coast are undoubtedly the best exteriors of the picture, building up particularly through the river and waterfall sequences as the two leading male players portage their canoe overland in their chase to warn their shipmates of the plan of the treacherous Indians. For that matter, "This Woman Is Mine" gathers interest both photographically and dramatically in its concluding reels.

Krasner's handling of the interiors is excellent. He has many chances for richly atmospheric effect-lightings, especially in the scenes in the ship's cabin and brig, and he uses them to full advantage.

His treatment of the players is excellent, especially in the case of the interesting, but none too photogenic newcomer, leading-lady Carol Bruce.

The special-effects work of John P. Fulton, A.S.C., is up to Fulton's usual high standard. Such transparency-shots as are used in the picture are well handled, and the climaxing action—the blowing up of the ship—is a really exellent job of miniature-work. However, it is certainly to be regretted that this action could not have been covered by more cameras, so that a greater variety of camera-angles might have been obtained, for the action loses much of its dramatic impact by being disposed of so quickly.

TANKS A MILLION

Hal Roach Production; United Artists' Release.

Director of Photography: **Robert Pittack, A.S.C.**

Robert Pittack, A.S.C., turns in a neat and workmanlike job of camerawork in bringing this, the first of Hal Roach's new "streamlined features," to the screen. Of course this broad comedy of the Army camps doesn't offer much in the way of pictorial opportunities, but Pittack takes good advantage of such opportunities as present themselves (especially in the opening sequence) and handles the rest with the efficient, high-key comedy photography the action demands. In addition, he presents the players—especially leading lady Elyse Knox—to much better advantage than is usually expected in a film of this type.

On the entertainment side, it is a pleasure to report that Roach's experiment with short-length features is a success. "Tanks A Million" is short—a scant five reels—but it consists of fifty minutes of practically unbroken "belly laughs" of the sort that have been conspiciously missing these last few years. In this connection, it proves that both the producer and film-editor Richard Currier remember the old vaudeville adage, "always leave them wanting more"—an axiom many makers of longer and more pretentious films might do well to consider.

LIFE BEGINS FOR ANDY HARDY

MGM Production.

Director of Photography: **Lester White, A.S.C.**

Lester White, A.S.C., gives this latest of the "Hardy family" films much more distinguished photographic treatment than is usual with "series" films. With a story that covers a considerably wider range of dramatic moods than has been usual in this series, cinematographer

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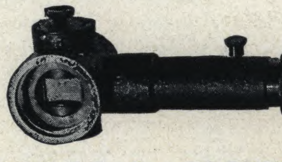

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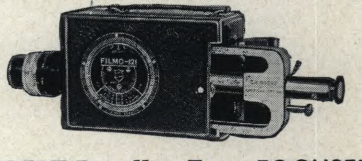

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White has excellent opportunities not only for straightforward camerawork, but pictorial and mood effects. He distinguishes himself in his handling of them, never missing any opportunity that comes his way. His treatment of the players is also excellent, especially as regards the feminine ones. It might be suggested, however, that the characterization of Patricia Dane, as the gold-digging city girl, might have been made much more convincing had he been allowed to give her a slightly less flattering photographic treatment. As it is, she is presented so attractively (not only by photographer but by writers and directors as well) in the earlier sequences that her sudden change of character at the end seems incongruous.

SUN VALLEY SERENADE

20th Century-Fox Production.

Director of Photography: **Edward Cronjager, A.S.C.**

"Sun Valley Serenade" is a typical musical in the Zanuck manner, but it offers considerably more photographic interest than most. Director of Photography Edward Cronjager, A.S.C., has turned out an excellent photographic job, with one or two sequences so exceptional that it is worth seeing the picture for them alone.

Outstanding among these is of course the skiing sequence, by long odds the real highlight of the production in every way. As an example of spectacular action-camerawork amid spectacular settings—the mountains above Sun Valley—it is by far the best skiing film ever made in this country, and well worthy of favorable comparison with the all-time "tops" in this field—the pre-Nazi German-made "Piz Palu" and Tsukamoto's "Mt. Zao." The process-work in this sequence adds measurably to its value; for that matter, the process-work certainly deserves screen credit.

The second pictorial highlight is the concluding "black ice" skating ballet which, while it does not give the star the best of opportunities to display her skating skill, is a pictorial delight.

Cronjager's treatment of the players—especially Lynn Bari and the strikingly slenderized Sonja Henie—is excellent. His introductory close-ups of Miss Bari are particularly lovely.

Drastic cutting of the film's overly long drawn-out musical interludes would be beneficial. In their present form, however, they deserve study as remarkable examples of the artifices an ingenious cinematographer can draw out of his bag of pictorial tricks when faced with the problem of keeping things interesting in the screen when the script calls for a ten or twenty-minute interlude of so static and visually uninteresting a subject as a swing band in action. What Cronjager has been able to do to this end through the use of projected shadows, diversified camera-angles and the bizarre perspective-distortion of a 24mm. lens (especially in close angle-shots of trombone-playing bandleader Glenn Miller and his band's trombone section!) is a genuine achievement. But the picture, as a picture, would be much better if these sequences were shortened by half.

The recording, by Alfred Bruzlin and Roger Haman, is excellent, especially in Glenn Miller's first musical number which starts the film off with surpassingly fine sound which, unfortunately, is never quite equalled in the succeeding numbers.

WHEN LADIES MEET

Metro-Goldwyn-Mayer Production.

Director of Photography: **Robert Planck, A.S.C.**

Robert Planck, A.S.C., makes this film a pictorial delight. His compositions and set-lightings make it one of the most decorative films we've seen in some time. His use of cast shadow-patterns on set-walls, for example, adds notably to the richness of the sets provided by Art-directors Cedric Gibbons and Randall Duell. Visually, the picture is one of the most richly-mounted productions even M-G-M has turned out lately.

Planck achieves very excellent mood-lightings, keeping his treatment well keyed to the changing dramatic requirements of the story, which range from smart comedy to seriously dramatic scenes. His effect-lightings — especially one scene played almost entirely in silhouette, and the various night-effects—are very fine.

The film makes extensive use of projected-background process-shots. It is really unfortunate that M-G-M does not give credit for the process-shots in this picture, for they are not only well above M-G-M's usual standard, but rank high among the best we've seen. In one shot, the definition and perspective of the background-plate might have been better coordinated with the foreground, and in the sailing sequence this reviewer felt that the agitation of the water in the immediate foreground could have been improved to good advantage. But in the main the process-work was a real highlight.

On the other hand, it must be admitted that Planck's treatment of the players was a bit uneven. He gives Joan Crawford by far the best photographic appearance she has enjoyed in a long time; but on the other hand, his treatment of Greer Garson—especially in her earlier scenes—is by no means so good. After seeing her in "Blossoms in the Dust," too, one inevitably misses the vibrant reality Technicolor gives this capable star. Planck's treatment of Herbert Marshall could at times be considerably improved, especially in some scenes where Marshall's movements took him from the usually soft front-lighting which most flatters him to an unduly strong cross-light or cross-back lighting, which momentarily added years to his appearance. Planck's diffusion technique might also have been more consistent; it would be an exaggeration to say that he seemed to use every known medium of diffusion at some time or another during the picture, but he certainly came close to it, interspersing heavily-diffused scenes with scenes shot with very little or none.

Despite these comparatively minor faults, however, "When Ladies Meet" stands out as an outstandingly pictorial piece of camerawork — and fine entertainment, to boot.

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